literacy 1969–1971

Progress achieved
in literacy throughout
the world

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Literacy 1969–1971

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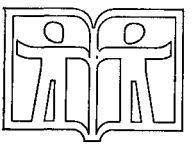

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Preface

In 1970 the report *Literacy 1967–1969* provided an account of adult literacy work up to the last years of the 1960s. This publication carries the story forward to describe the efforts made to bring some of the world's illiterate millions into a literate society during the period of transition from the First to the Second Development Decade.

The present account is largely based on replies to a questionnaire sent in the spring of 1971 to all Unesco Member States and to non-governmental groups and organizations concerned with literacy. A total of sixty-seven Member States replied, but many of these stated that illiteracy was no longer a problem for them. Twenty-three non-governmental groups and organizations also answered the questionnaire. Information from these replies has been supplemented by material from reports, periodicals and books appearing during the period under review or touching on it. The account no doubt suffers from a lack of information on literacy activities in several countries.

This report cannot possibly describe all the innovative and ingenious literacy programmes deserving mention, nor can it name all the organizations, groups and individuals making important contributions to the promotion and improvement of adult literacy education. It does try to sketch the main trends of this activity, using as examples selected programmes and contributions on which adequate documentation is available, and also to indicate what problems must be solved within the next decades if large-scale reductions in illiteracy are to take place.

It is felt that the analysis of trends and figures in the present publication will not only be of interest to policy-makers and others directly concerned with literacy work but also to all those members of the general public who recognize that literacy is basic to the future development of millions throughout the world.

Contents

Introduction: progress and trends

Within the context of ever-increasing efforts to expand literacy education, the spread of the concept of functional literacy and the execution, with the participation of Member States, of Unesco's Experimental World Literacy Programme to test and develop this concept, have provided the main impetus to world-wide literacy action in 1969–71. Any assessment of recent literacy efforts must ask to what extent the work-oriented pilot projects of the experimental programme are meeting expectations and what prospects are opened by functional literacy in action.

Functional literacy, however, is a conceptual framework, not a formula, and the work-oriented pilot projects are what their name implies: relatively small undertakings aimed at increasing knowledge and demonstrating techniques. It was the failure of so many earlier publicly and privately sponsored efforts to eradicate illiteracy—whether at the international, national or local level—that led governments and other agencies to endorse a new approach. The ultimate success of new concepts and programmes depends on whether they have improved literacy work at all these crucial levels.

Keeping these perspectives in mind, we can ask what main trends stand out from a world-wide review of recent literacy efforts. Before these trends are summarized, however, a look at the statistics on literacy is in order to set the stage.

THE BATTLE OF NUMBERS

The fight to spread literacy among the world's population is being both won and, to some extent, lost.

On the winning side, latest estimates[1] show that the *percentage* of literates in the population continues to rise. It rose more during the years 1960 to 1970 than had been predicted for this period. Also on the winning side, more people (both primary-school children and adults) are becoming literate than ever before.

1. The multiple weaknesses of literacy statistics are often noted, not without justice, but these statistics at least give us a broad picture of where illiteracy is concentrated and what effects literacy work is having. Census figures for 1970 are not yet available for analysis but it is expected that they will be more detailed and more accurate than previous statistics, owing to the new emphasis placed on literacy and to census guidelines laid down by the United Nations.

On the losing side, the *number* of illiterates, like the world population as a whole, continues to increase. It is not growing at anything like the same rate as the world population, but is so overwhelming that it is producing more people than present literacy efforts can cope with. (This is especially true in the developed countries where higher population growth-rates contribute to the education gap between these and developing countries.) For many school-age children there are no schools at all, nor are all the children who do attend school staying there long enough to acquire permanent literacy; thus new generations of illiterates continue to join the adult population. Also, many who were once literate, whether through schooling or adult literacy education, have lost these skills because thay lack any opportunity to develop them.

A closer look at statistics on illiteracy reveals further injustices. Almost universally, more women are illiterate than men; recent growth in literacy has favoured men over women, thus widening this differential. Rural dwellers are more apt to be illiterate than those living in urban areas, especially in many countries that depend largely on agricultural production for their income. There is a dangerous possibility that educational differentials between these groups will widen unless women and rural populations receive special attention.

Quantitative statements on literacy depend largely on one's definition of who is literate, and here the last three years have seen some soul-searching on the part of statisticians and educators. New definitions based on functionality—to what extent one's literacy skills allow one to meet society's normal demands—show that many people still officially considered literate are in fact as ill-equipped for daily tasks as total illiterates. Some of the economically developed nations, where both industry and agriculture are being automated and skilled labour is increasingly in demand, are recognizing a need to improve the basic literacy skills of a substantial part of the adult population.

LITERACY IN AN ECONOMIC AND SOCIAL CONTEXT

Ironically, just when quantitative projections of world illiteracy are providing scant room for optimism, literacy is being accorded more and more qualitative importance in meeting national and international development objectives. If an important characteristic of the last decade is the increasing weight granted general (school) and technical education in plans for social and, especially, economic development, a crucial trait of the period under review is the attention economists and planners are paying to adult literacy. Adult literacy is now considered by many a prerequisite without which many forms of capital and technical investment (including training of certain high-level manpower) lose their impact. Economists do not agree on exactly when or how much literacy is required in modernization processes, but few in 1971 would disregard adult literacy in designing development plans and programmes.

Literacy and illiteracy are part of a social as well as economic context, and recently social scientists have been enriching literacy activities by providing information on the varying social implications of literacy in given societies. Examination of the sociological and cultural aspects of literacy is invaluable in attacking all kinds of problems, from motivating adult attendance at courses,

to designing materials that they can learn from and will read, and predicting the retention and use of attained skills. Social science is placing literacy, too often assumed to be a uniform set of skills uniformly desired by all, within the multiple complexities of a multitude of societies.

TESTING FUNCTIONAL LITERACY

There is now enough experience with functional literacy programmes to allow some conclusions about this approach to literacy teaching.[1] It seems quite clear that functional literacy programmes achieve very good results provided the conditions they require are met. A good deal has been written about what functional literacy is; attention is now turning to discussing how it works and to defining the conditions under which it works best.

Because most functional literacy programmes, and especially those of the Experimental World Literacy Programme pilot projects, are for workers in industry and agriculture, the approach itself might be thought inherently élitist. In fact this is not the case. In most developing countries selectivity of some sort is enforced by lack of means; countries participating in the Experimental World Literacy Programme have chosen to experiment with providing literacy to those groups with the greatest chance of using it to advance over-all national development. But the idea of integrating literacy with other skills and knowledge to improve daily living can be applied to millions of people. For example, the 1969–71 period has seen the initiation of a number of functional literacy programmes for women; these programmes are functional in that they integrate literacy with the teaching of improved practices in such areas as nutrition, child care and hygiene. In the United States of America, functional literacy programmes reach out to the most disadvantaged—the unemployable. Far from meaning abandonment of the goal of universal literacy, functional literacy implies better planning for, and management of, available resources in achieving that goal.

THE EXPERIMENTAL WORLD LITERACY PROGRAMME

By far the most significant literacy action programme operating during the period under review has been the Experimental World Literacy Programme. During this period the programme entered a new phase.[2]

In 1969 most of the twelve experimental projects within the programme were still at the planning stage—developing initial teaching materials, experimenting with training small groups of teachers, working out relationships between international and governmental staff and between agencies and ministries, and conducting a few trial classes. By 1971 this stage was over and a number of projects were in full operation: by 1 July 1971 about 235,000 adults were attending classes, taught by some 8,000 instructors. Even more important, the projects had developed, tested and refined many different teaching programmes,

1. A description of functional literacy appears in Chapter 3.
2. Details of the Experimental World Literacy Programme are given in Chapter 3.

each designed to meet the specific learning needs of a given group. At this point attention was turning to completion of the projects and integration of their activities into national literacy programmes as well as to evaluation of results and dissemination of information. Additionally, Unesco was exploring with other governments and agencies possibilities for launching new and highly diversified experimental projects and investigating possible implications of new methods developed in the programme for other branches of education.

Obviously, development of the work-oriented pilot projects has not proceeded without problems. It is now recognized that the time allowed for planning and preparation was too short, and in some cases the *milieu* chosen was not suited to a functional literacy programme. The experimental intentions and the operational realities of these projects, moreover, have sometimes conflicted, and not all the experimentation originally planned has taken place.

Despite these set-backs—thorough analysis of which is as important as that of positive achievements—the pilot projects have clearly produced many significant operating results and are now providing important information on the application of functional literacy in a variety of settings. They have also broken new ground in a number of vital areas: methodology for work-oriented literacy, design and production of highly specialized teaching materials for functional literacy programmes, organization for adult literacy work in industrial and rural settings, training of instructors as well as personnel at all levels concerned with literacy education, evaluation of on-going adult literacy programmes and their results. Further, their influence on national and other literacy programmes around the world is strong and growing.

CHANGES IN GOVERNMENTAL POLICIES AND ORGANIZATIONAL PATTERNS

National policy towards literacy has changed strikingly in many countries during the period 1969–71. Abandoning earlier expectations that school education alone would solve educational deficiencies, many governments have officially recognized the importance of adult education, including literacy, in national development and are providing for literacy education for adults in national development plans. In a related move, a number of countries have chosen a selective approach linked to development priorities and integrating literacy with other kinds of knowledge and skills to replace a rarely effective massive approach.

Many countries, including some that have endorsed a functional approach, still regard adult literacy as a first step towards attaining a school equivalency certificate; such certificates are still widely required for employment and for further education. A few countries, however, are groping towards adult literacy education based entirely on adult needs and learning potentials.

The new policies described above often have practical repercussions in the establisment of a section, or sometimes a centre, for adult literacy within the ministry of education (or, occasionally, within another ministry). Another related trend is grouping representatives of various agencies concerned with adult literacy education in a board or committee or council, to set guidelines and determine policy for adult literacy work. Such groups can also increase public

awareness of, and support for, literacy activities. In some countries they are being formed at the regional and local as well as national levels.

INNOVATIONS IN PERSONNEL TRAINING

Though primary-school teachers remain the principal source of adult literacy teaching staff, the period 1969–71 has seen a strong trend to recruit teachers from other sources: co-workers of adults in work-oriented literacy programmes, agricultural extension or health personnel. In addition, all kinds of literacy teachers, even those with primary-school experience, are increasingly receiving specialized pre-service and/or in-service training in imparting both literacy skills and other vital information to adults.

A pressing need within the pilot projects assisted by the United Nations Development Programme (UNDP) and Unesco for trained personnel in various fields (programme design and evaluation, administration, production of teaching materials, teacher training, post-literacy activities) has brought about a new approach to training: the operational seminar. An operational seminar brings together interdisciplinary teams who work intensively to design and implement an actual functional literacy programme within a specific *milieu,* in collaboration with the local population and programme participants: learners, teachers, supervisors. The aim is to provide training through doing, and the method may have important implications for training personnel for other levels of education.

INNOVATION IN METHODS AND MATERIALS

The period 1969–71 has seen a real explosion of innovative methods and means for helping illiterate adults learn.

Pedagogic innovation begins with the design of 'made-to-order' learning programmes, when potential learners and programme designers determine together what problems in a given *milieu* are impeding personal and collective progress, which of these education can help solve, and what kinds of learning can provide the understanding, knowledge and skill most needed. Learner participation in programme design is a radical change from previous approaches.

Innovation continues with new ways of presenting and arranging learning materials. The learner is encouraged to take an active part; the stress is on learning by doing. In the process the learner may meet a variety of audio-visual aids from films, filmstrips and slides to cassette recordings or television programming. He may use new means for individual study—for example, programmed learning. He may experience techniques unknown in the traditional classroom: group discussion unobtrusively guided by a trained animator, practical demonstrations in the field or workshop. He may produce learning materials for himself and others—by writing stories or listing words identified outside the classroom.

A parallel revolution is taking place in the design of aids for teachers. Especially in programmes integrating work-oriented learning materials with literacy, the best teachers are often people from the learners' *milieu*: a fellow farmer or factory worker or housewife familiar with learners' problems and

points of view. Such teachers need special reinforcement in teaching methodology, provided through a variety of means: teachers' guides, lesson-by-lesson instruction sheets, self-explanatory visual aids, radio programmes broadcasting advice on teaching and model lessons.

These new methods and techniques are limited in most countries to small pilot programmes, because they are costly or because their use requires specially trained personnel as yet in short supply. Therefore their greatest near-term value may lie in their effect on larger-scale programmes. Abandonment of schoolchildren's primers for books more suited in subject-matter and vocabulary to adult interests, use of visual aids designed by hand, initiation of discussion among adult learners—such less-spectacular but important changes are becoming widespread in national and other literacy operations.

Eventually, current innovation in adult literacy methods and materials may strongly influence other areas of education—for example, schools in developing countries. In some of these countries, adult literacy education now shows signs of becoming a testing ground for application of new techniques to the practical exigencies of low-budget teaching programmes in hard-to-reach areas where teachers have a little more education than those they are teaching.

NEW EMPHASIS ON POST-LITERACY

Post-literacy activities have two aspects: practice of skills attained during literacy instruction, and provision of opportunities for further formal and informal education and for cultural enrichment.

Functional literacy programmes offer one built-in response to the first problem since they are designed to impart literacy and other skills to those who need and will use them. Nevertheless, even these programmes must provide printed materials—brochures, periodicals, newspapers, books—in a language and vocabulary the new literate can read. Some functional literacy programmes are going further to stimulate the new literate: for example, by providing libraries, but also organizing book discussion groups to help printed matter come alive; by radio broadcasts designed to increase knowledge and create interest in continued learning.

As for further opportunities for organized education, these are widely available in some countries and still on the drawing-board in others. Even where they exist, however, there is a growing realization that they must be articulated with adult literacy efforts, taking realistic account of the new literate's still-limited abilities and the fact that he often needs guidance, encouragement and even incentives to continue his education. In this area the eventual development of lifelong education systems designed to meet people's immediate educational needs will greatly increase the possibilities for reinforcing adult literacy.

GROWING INTERNATIONAL CO-OPERATION

The 1969–71 period saw a marked expansion of international co-operation and collaboration both within and outside the Experimental World Literacy Programme. Literacy instruction for adults has long been provided by a bewildering

variety of agencies and organizations round the world, some public, some private, some large, some small. These agencies are now increasingly grouping forces to establish literacy programmes, organize meetings and workshops on specific problems of literacy education (for example, production of teaching materials, training of teachers), and exchange information. Even international agencies are co-operating in literacy work: some of the pilot projects of the Experimental World Literacy Programme include experts from the Food and Agriculture Organization (FAO) and the International Labour Organisation (ILO) as well as from Unesco, while others constitute a component in larger development operations.

Information exchange is particularly crucial, since the rhythm of innovation in both concept and action has quickened in the last few years while, correspondingly, the desire for information on practices, problems and results has grown. The 1969–71 period has seen the establishment of an international institute for adult literacy in Iran which collects and disseminates information on adult literacy methods, as well as the launching of several new publications devoted to literacy efforts.

With more and more interest in literacy as a vital input into programmes for social and economic advancement, the number of agencies concerned with adult literacy and the amount of regional and international collaboration between them should grow; hopefully, increased international collaboration will bring with it higher efficacy and greater financial support for literacy work.

FINANCING: FAR BEHIND NEEDS

Growing interest in adult literacy education has not, it would seem, been matched by a significant increase in funds allocated to adult literacy.

Public expenditures for literacy on the national level are usually included in the total budget for adult education, and even this figure is not readily available. Recent information from forty-four Member States—both developed and developing countries—shows that the majority (twenty-three countries) spend less than 1 per cent of the total education budget on adult education and literacy combined; only three of these countries spend over 3 per cent of their educational budgets on adult education. Total world-wide public expenditure on education at all levels is increasing (it grew almost 150 per cent between 1960 and 1968, the latest year for which figures are available); but, according to figures quoted by the Unesco Office of Statistics, most of these funds—U.S. $120,000 million out of a world-wide total of U.S.$132,000 million spent in 1968—is accounted for by the developed countries, which of course have the smallest illiteracy problem.

Private and supplemental aid from voluntary agencies, bilateral sources, private enterprise and so forth, has often given important support to adult literacy work, but this support remains impossible to quantify and there is no evidence that it has increased in 1969–71.

As for aid from international sources, this has remained more or less steady during the years under review. The main part of aid to literacy goes to the Experimental World Literacy Programme's twelve pilot projects. These projects

are jointly financed by UNDP, with funds administered by Unesco, and the countries in which they operate, in an average ratio of one part UNDP funds to four parts national government financial support. An encouraging trend has been the allocation to Unesco of funds in trust from private and public sources within Member States for specific functional literacy projects.

Where the need is greatest—in the developing countries—national governments cannot in most cases substantially increase their educational budgets or readjust priorities to provide massive funds for adult literacy. Bilateral aid might grow to some extent, especially if aid-giving nations recognize the value of including an adult literacy component in every development project. UNDP can be expected to continue to finance functional literacy programmes, but obviously does not have the means to provide all the assistance needed.

Clearly, in the face of an overwhelming need to arrest the continuing growth of adult illiteracy throughout the world, new sources of financing must be found. Among the most promising of these are institutions like the International Bank for Reconstruction and Development (IBRD) and the regional development banks which contribute to over-all economic development. As more results of the Experimental World Literacy Programme become available the interest increasingly shown by these institutions will perhaps result in solid commitments to provide financial aid for adult literacy.

1 World literacy: the statistics

Statistics on literacy in the world's adult population reflect the totality of efforts to create a literate adult population—through childhood school attendance, adult literacy programmes and all other forms of education, formal and informal, designed to promote, maintain and develop literacy. This book reports on activities during the period 1969–71 in one branch of education: adult literacy programmes. The significance of these activities is not clear, however, unless they are viewed within the context of the over-all struggle against illiteracy at all age levels, since the need for adult literacy education tomorrow will depend on how many children there are today and the percentage of these becoming permanently literate in school.

In *Literacy 1967–1969* the Unesco Office of Statistics attempted to update to 1960 the estimate of the world literacy situation that had been made for around 1950. Since that document appeared, a few more countries have published the results of their 1960 round of population censuses and the 1970 round of censuses has begun. The results of the latter, however, will not be available for a number of years.

In the meantime, the Unesco Office of Statistics has re-estimated the 1960 situation and has made some preliminary estimates for 1970. Table 1 summarizes the situation.

TABLE 1. Estimated numbers (in millions) and percentage of illiterate adults (15 +) in the world

Year	Adult population	Literates	Illiterates	Percentage of total illiterates
1950	1 579	879	700	44.3
1960	1 869	1 134	735	39.3
1970	2 287	1 504	783	34.2

MORE LITERATES, BUT ALSO MORE ILLITERATES

The percentage of adults (i.e. persons aged 15 and over) who are illiterate has fallen in the two ten-year periods 1950–60 and 1960–70 from 44.3 per cent to 39.3 per cent and then to 34.2 per cent. This is a considerable drop—five percentage points in each of the two decades. At the present moment, therefore,

one can begin talking in terms of one-third of the world's adults being illiterate instead of the old familiar estimates of two-fifths in 1960 or nearly one-half in 1950.

Nevertheless, because the total adult population has swelled by about 700 million in the same period—an increase of some 300 million in the first decade and some 400 million in the second—the actual number of adult illiterates has gone on rising. It rose by 35 million in the decade 1950–60 and by 48 million in 1960–70, resulting in a present total of 783 million adult illiterates.

At the same time, however, the number of adult literates in the world has also been rising—by about 250 million in 1950–60 and over 350 million in 1960–70, or a total of over 600 million in the two decades.

It is important always to keep sight of this enormous increase in the number of literates when discussing world literacy because it demonstrates the efforts made by Member States throughout the world to extend primary education and develop adult literacy programmes.

The 1970 estimated world figure of 783 million illiterate adults is more favourable than would have resulted had the 1950–60 rate of decrease in the percentage of illiterates been maintained (see Table 2). Had this been the case, illiterates would account for 34.8 per cent of total population (instead of 34.2 per cent), or an estimated 800 million persons (instead of 783 million). In other words, the percentage of illiterates to total population, it is estimated, fell sightly faster between 1960 and 1970 than between 1950 and 1960.

TABLE 2. Adult (15 +) population: rate of decrease in percentage of illiterates to total population

Period	Rate of decrease in percentage of illiterates	
	Annual	Decennial
1950–60	0.50	5.0
1960–70	0.51	5.1

Table 3 shows that the number of literates in the world increased at a faster rate in 1960–70 than in 1950–60; also, in both decades, literates increased at a much faster rate than did the adult population as a whole. However, the ever-rising rate of increase in the total population still causes the number of illiterates to grow, though only by a relatively small amount.

Although it is not very meaningful now to make estimates for 1980, the Office of Statistics very tentatively suggests that the combined effects of ageing

TABLE 3. Adult (15 +) population and literacy estimates: rates of increase (percentages)

Period	Adult population		Literates		Illiterates	
	Annual	Decennial	Annual	Decennial	Annual	Decennial
1950–60	1.70	18.43	2.58	29.01	0.48	5.00
1960–70	2.03	22.36	2.86	32.63	0.63	6.53

of the population, increase in primary education and intensified adult literacy campaigns will continue to produce even greater improvements during the seventies than have been estimated for the sixties. In 1980, with a projected world adult population of 2,823 million, there might still be some 820 million adult illiterates, who would represent 29 per cent of the total adult population. This would mean an increase of some 500 million adult literates against an increase of 37 million adult illiterates. The effect of this huge increase of 536 million in the adult population during the seventies—as against 418 million in the sixties—could continue to undermine all efforts Member States make to eradicate illiteracy.

It might be interesting to look at all the data presented graphically (see Figs 1 and 2).

The situation can be seen at a glance: a soaring population and the number of literates soaring, although with the number of illiterates also showing a slight but steady rise. The reader can easily imagine the continuation of the lines showing literates and illiterates up to the year 2000; even the most optimistic of assumptions could not lead one to believe that illiterates throughout the world will number fewer than 650 million, or about 15 per cent of the world adult population, in thirty years. Despite steady gains, world adult illiteracy is not a problem that will be solved during the twentieth century.

REGIONS: IN ONE THE TIDE IS TURNING

Table 4 gives the 1960 and 1970 estimates broken down by region. As shown, Africa and the Arab States have the largest percentage of illiteracy in their adult populations, followed by Asia and then Latin America; the order has not changed between 1960 and 1970. All four regions decreased their illiteracy rate by between seven and nine percentage points during the decade. However, this means that, whereas in Latin America the percentage of illiterates to total population was reduced by more than a quarter, in Africa and the Arab States it fell by only 10 per cent.

For the first time in Latin America the absolute number of illiterates decreased over a ten-year period, albeit by only 1.5 million. In this region the tide is turning.

Only a most speculative estimate can be made about what the regional situation might be in 1980. At the present rate of educational progress, and taking into account the ageing of the population, the percentage of adults who are illiterate should fall in Africa from 74 per cent to 67 per cent; in Asia from 47 per cent to 38 per cent; and in Latin America from 24 per cent to 15 per cent. Still, these estimates mean that, in both Africa and in Asia, there will be over 25 million more adult illiterates by 1980.

WOMEN AND ILLITERACY

In all regions of the world the percentage of illiterates to total population is larger for women than for men. However, the differential between male and female illiteracy varies greatly by region, as seen in Table 5.

As Table 5 shows, while illiteracy among both men and women has dropped in percentage terms between 1960 and 1970, male illiteracy has decreased faster than female illiteracy. In other words, world-wide gains in literacy in the last decade have benefited the male population, which already had a higher literacy rate in 1960, more than the female population. The trend is for the disparity between the two groups to increase where it is greatest—in the Arab States and in Africa; whereas in Latin America, where the disparity was relatively small in 1960, the difference between the two sexes has narrowed in the last decade.

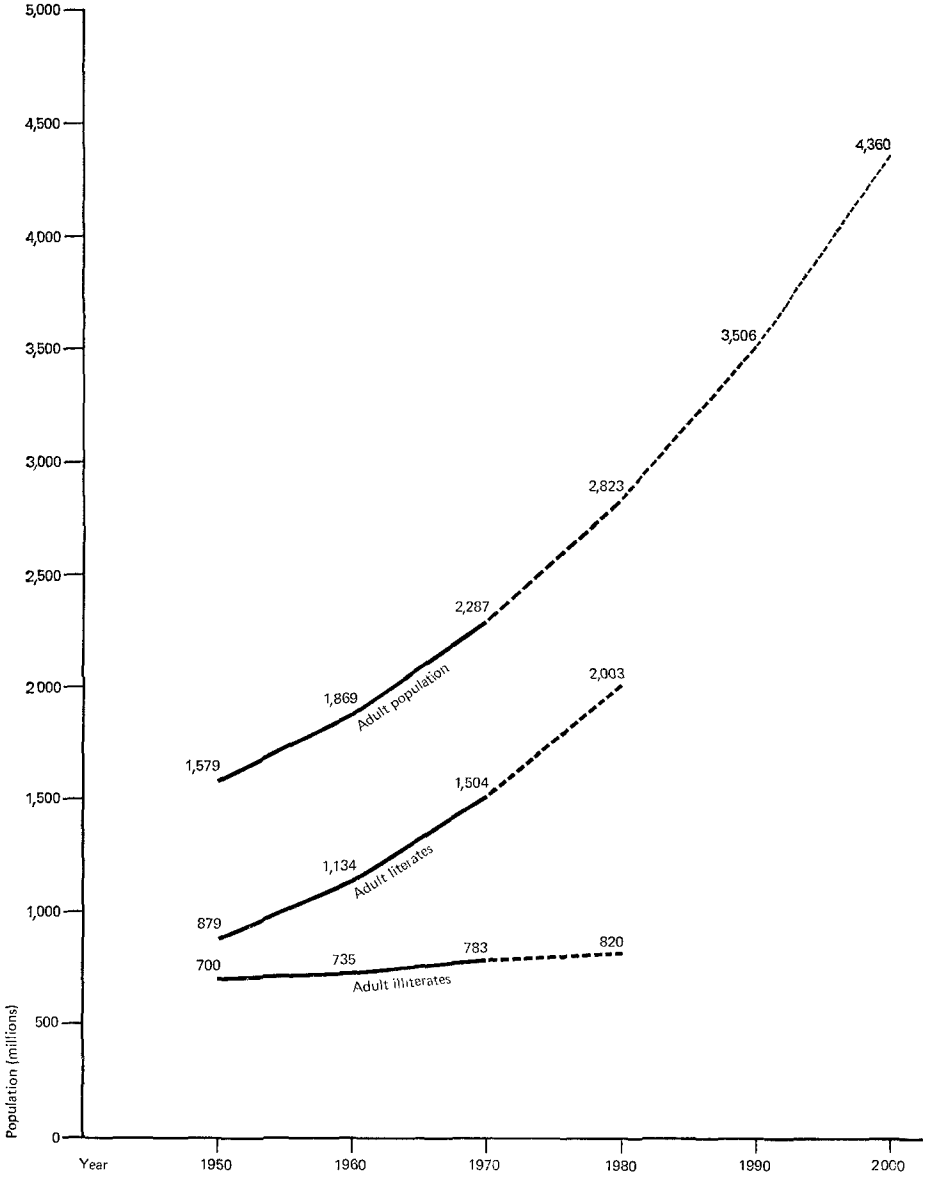

FIG. 1. Growth of adult (15+) population and increase of literates and illiterates.

WHY IS ILLITERACY PERSISTING?

The number of illiterates in the world is bound to continue growing for some time for a very simple reason: the population is increasing faster than educational facilities, both for children and for adults, are being provided.

Total world population[1] is now increasing at about 2 per cent a year, mainly because advances in medicine and nutrition are allowing more people to survive and live longer lives. Since the greatest gains have been made in reducing infant and childhood mortality, the rate of population increase is even higher in the younger part of the population, that of school-going age. Census figures already available indicate that between 1960 and 1968 an additional 123 million children aged 5–14 were theoretically eligible for basic education. According to population projections made by the United Nations, from 1965 to the year 2000 the population aged 0–4 will have increased by 63 per cent (an additional 290 million), and the population aged 5–14 will have grown by 80 per cent (an additional 620 million).

Population-increase rates are, and will continue to be, greatest in areas where the percentage of school-age children enrolled in school is smallest—Africa, the

1. Statistics on population in this text come from the United Nations Population Division; statistics on school enrolment ratios, drop-out and wastage are from the Unesco Office of Statistics, based on questionnaires sent out by Unesco and on national publications.

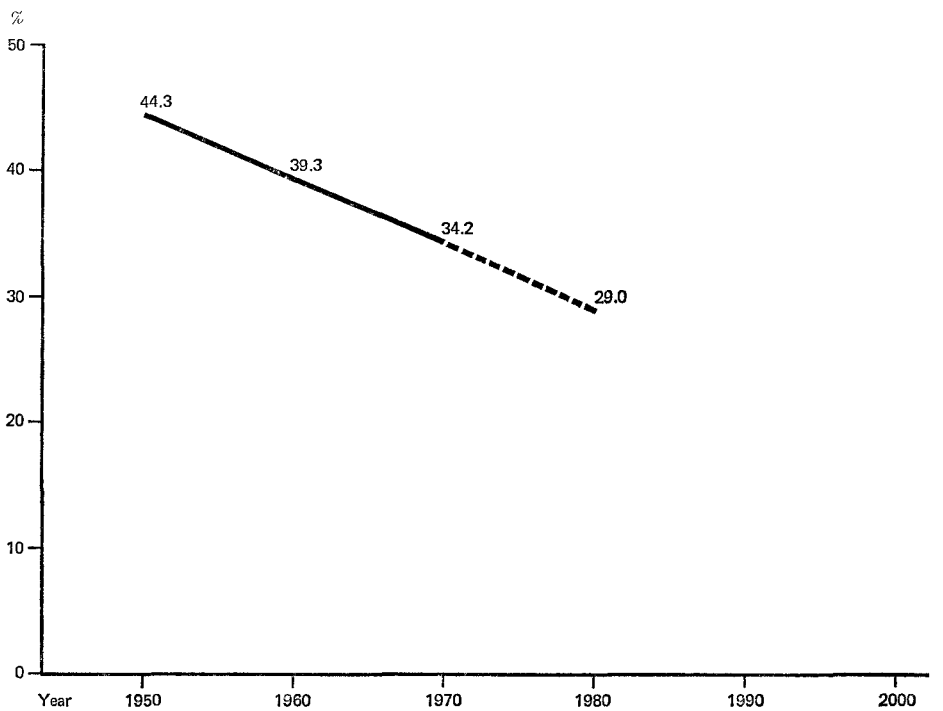

FIG. 2. Decrease of adult illiteracy rate.

TABLE 4. Adult (15 +) literacy around 1960 and 1970

Major regions[1]	Around 1969				Around 1970			
	Adult population (000)	Literate adults (000)	Illiterate adults (000)	Illiteracy percentage	Adult population (000)	Literate adults (000)	Illiterate adults (000)	Illiteracy percentage
World total	1 869 000	1 134 000	735 000	39.3	2 287 000	1 504 000	783 000	34.2
Africa	153 000	29 000	124 000	81.0	194 000	51 100	143 000	73.7
Northern America	136 000	133 000	3 300	2.4	161 000	158 000	2 500	1.5
Latin America	123 000	83 100	40 000	32.5	163 000	125 000	38 600	23.6
Asia	982 000	440 000	542 000	55.2	1 237 000	658 000	579 000	46.8
Europe	464 000	439 000	24 500	5.3	521 000	502 000	18 700	3.6
Oceania	10 600	9 400	1 200	11.5	13 000	11 800	1 400	10.3
(Arab States)	(52 700)	(9 900)	(42 700)	(81.1)	(68 300)	(18 400)	(49 900)	(73.0)

1. The world total covers the whole world, including Unesco Member States, non-Member States and non-self-governing territories; Africa covers the entire African continent, including the Arab States of Africa; Northern America includes the United States, Canada, Bermuda, Greenland and St Pierre and Miquelon; Latin America covers the South American continent, Central America, Mexico and the Carribbean; Asia covers the entire Asian region, including the Arab States of Asia; Europe includes the Union of Soviet Socialist Republics; Oceania covers Australia, New Zealand and the surrounding islands; the Arab States as a separate grouping are presented in parentheses as they are already included partly under Africa and partly under Asia.

TABLE 5. Male and female adult (15 +) literacy around 1960 and 1970

Major regions[1]	Around 1960				Around 1970			
	Adult population (000)	Literate adults (000)	Illiterate adults (000)	Illiteracy percentage	Adult population (000)	Literate adults (000)	Illiterate adults (000)	Illiteracy percentage
				Males				
World total	916 000	609 000	307 000	33.5	1 127 000	812 000	315 000	28.0
Africa	75 900	20 200	55 800	73.4	96 000	35 100	60 900	63.4
Northern America	66 800	65 600	1 300	1.9	78 000	77 200	850	1.1
Latin America	61 300	44 000	17 400	28.4	81 000	64 900	16 100	19.9
Asia	494 000	270 000	224 000	45.3	624 000	393 000	231 000	37.0
Europe	213 000	205 000	7 700	3.6	243 000	237 000	5 800	2.4
Oceania	5 300	4 800	530	9.9	6 600	6 000	580	8.8
(Arab States)	(26 500)	(7 500)	(19 000)	(71.6)	(34 300)	(13 600)	(20 800)	(60.5)
				Females				
World total	953 000	525 000	428 000	44.9	1 160 000	692 000	468 000	40.3
Africa	77 000	8 800	68 200	88.5	97 900	16 000	82 000	83.7
Northern America	69 700	67 700	2 000	2.8	82 800	81 200	1 600	1.9
Latin America	61 800	39 200	22 600	36.6	82 200	59 700	22 500	27.3
Asia	488 000	170 000	318 000	65.1	614 000	266 000	348 000	56.7
Europe	251 000	234 000	16 800	6.7	278 000	265 000	12 900	4.7
Oceania	5 200	4 500	680	13.0	6 500	5 800	780	11.9
(Arab States)	(26 200)	(2 400)	(23 800)	(90.7)	(33 900)	(4 800)	(29 100)	(85.7)

1. See footnote to Table 4, above.

Arab States, Asia and Latin America; where most school-age children attend school—in North America and Europe—population is increasing at the lowest rate. Thus, of the additional 620 million children aged 5–14 expected in 2000, over 570 million will live in the developing countries, which by the end of the century will have doubled their population in this age group. The implications of this pattern of population growth for education are obvious: the developing countries will have to make enormous efforts merely to maintain present school enrolment ratios.

Even up to now, despite impressive advancements in primary-school enrolment[1] during the sixties, the schools have just barely managed to keep up with population growth. Many more children are in school than ten years ago, but the percentage of school-age children inside classrooms has not increased fast enough to make large advances over growth in the school-age population. As Table 6 shows, the estimated percentage of children of primary-school age attending school rose from 63 per cent in 1960–61 to 68 per cent in 1967–68. In 1968 only 40 per cent of African children of primary-school age were enrolled in school; corresponding figures for the Arab States and Asia were 50 per cent and 55 per cent respectively.

TABLE 6. Percentage of children of primary-school age[1] attending school, 1960–61 and 1967–68 (provisional)

Major regions[2]	1960–61	1967–68
World total	63	68
Africa	34	40
Northern America	98	98
Latin America	60	75
Asia[3]	50	55
Europe	96	97
Oceania	95	95
(Arab States)	(38)	(50)

1. Primary-school age has been calculated as defined in each country's school system.
2. See footnote to Table 4, above.
3. Excluding China, the Democratic People's Republic of Korea, and the Democratic Republic of Viet-Nam.

While money is sought to build needed schools, especially in remote areas, and to train teachers, each year a new wave of young people passes into the adult world completely unschooled. Unless reached by adult education, these people remain illiterate all their lives. The majority of the developing countries cannot hope to attain universal primary-school enrolment in the coming decade.

Children receiving no education at all are not the only ones who will become

1. As Gunnar Myrdal has pointed out in his *Challenge to World Poverty* (New York, Random House, 1970), there is probably a large gap between school enrolment and regular school attendance in developing countries. Also, in terms of social and economic change, the real effectiveness of school expansion depends on who goes to school as well as on how many. In some countries most new schools are built around urban areas and attended mainly by children of relatively well-to-do families, while offspring of the poor, especially in rural areas, never see a school.

illiterate adults. One of the great weaknesses of statistics on literacy is that in many countries an individual is counted as literate merely because he has been enrolled in school for two or three years, while even where a reasonable minimum standard is set it is not always carefully applied (for example, in the United States anyone having attended school for six years is automatically counted as a literate in censuses even if those six years were spent in repeating the first two or three grades).[1] But school attendance alone does not ensure literacy, especially where school wastage (drop-out and repeating) is common. India, for example, reports serious wastage between the first and the fifth years; only 16 per cent of the children who entered grade I in 1963 completed grade V in 1967 (and only 47 per cent ever complete the five-year cycle even with repetition).[2] To make matters worse, wastage is most prevalent in rural areas, where people with weak literacy skills have the least incentive to improve those skills and where reading materials and opportunities for continued self-education are lacking.

Another factor in the rise in the number of illiterates, the effects of which probably do not show up in official statistics on literacy, is relapse into illiteracy among those who were once confirmed literates. Only a small amount of information is available on this phenomenon but all of it is disturbing. Thailand, for example, reports a 1968 study of the Department of Elementary and Adult Education of the Ministry of Education which found that 33 per cent of those graduated from grade IV (until recently the last grade of primary school) became illiterate within a few years after leaving school. A test made in 1963–64 of 973 adults who had attended adult literacy classes in Poland in 1949–51 showed that 60 per cent of those tested could no longer read or could read only with great difficulty, while only 9.4 per cent could write with ease.[3] According to a recent study[4] of literacy retention made in India, children having finished less than four years of schooling and adults with less than three years (or the equivalent) of intensive adult literacy instruction have little chance of retaining literacy skills at a useful level in later years. One can only wonder how many persons who could once read and write at, say, third-grade level in school or who passed a simple literacy test after two years of adult literacy instruction—and who have thus been counted as literates—have lost these skills.

1. In some cases the person is merely asked if he is literate. In urban areas especially, where illiteracy tends to be considered a liability, a respondent who is illiterate or who can barely write his name may be tempted to answer in the affirmative. The United Nations strongly urged use of a literacy test in the 1970 census but it is not yet known how many countries complied with this suggestion.
2. Children who repeat, it should be noted, fill classroom space from which other children are barred; the more repetition a school system shows, the fewer children it serves.
3. See: Joanna Landez-Tolwinska, 'Former Participants in Literacy Courses in Poland', *Literacy Discussion*, Vol. I, No. 3, summer 1970, p. 107–10.
4. *Retention of Literacy*, summary of a study by J. M. Kapoor and Prodipto Roy (Paris, Unesco, 1971. (ED/WS/219.)) A study of adult education in Tunisia notes that 'successful completion of the sixth grade is probably the minimum for ensuring that the child will retain his simple literacy five to ten years later when he has a more or less steady job'. John Simmons, 'Towards an Evaluation of Adult Education in a Developing Country', note 20, p. 42. (Unpublished report to Unesco's Literacy Division.)

CHANGING DEFINITIONS OF LITERACY

The statistics on literacy in the world today and projections for the decades ahead should be viewed in the light of another phenomenon: a continuing evolution in definitions of what is meant by literacy. More and more, literacy is being looked at pragmatically: literacy is as literacy does. In other words, a person is literate if he can meet the normal demands for literacy skills made on him by his society. Since many societies are undergoing fast development, these demands are themselves changing quickly.

As a result, people who are literate according to officially accepted criteria may find that when they apply for certain jobs, try to fill out required documents, or engage in other actions normally expected of ordinary members of their society their literacy skills are inadequate to carry them through. They are functionally illiterate.[1]

The discrepancy between official statistics on literacy and the actual capabilities of the adult population is receiving the greatest publicity in highly industrialized nations where a skilled work force is in demand and where daily living may involve dealing with a tangle of forms, documents and other papers. In the United States, for example, the official statistics on illiteracy show a scant 1 per cent of the population 14 years old and as illiterate in 1969.[2] Yet, a poll conducted in 1970 indicated that about 18.5 million Americans aged 16 and over cannot fill out standard forms required to obtain several vital social services. Using the simplest version of these forms available, and testing only people with no physical disabilities that could affect literacy, the poll showed that, on grounds of reading and writing disability alone, 4 million adults could not fill in forms required to get public welfare (unemployment) assistance, about 10 million people would have difficulty qualifying for social security, over 11 million could not get a driver's licence (for which a written test is required), and 14 million could not apply for a bank loan. Illiteracy is closely tied in with other social problems in the United States: it is estimated that approximately one-half of the unemployed between the ages of 16 and 21 are functionally illiterate, while about 60 per cent of the nation's prison inmates cannot read.[3]

1. The essentially negative, diagnostic terms 'functional illiterate' and 'functional illiteracy' have gained widespread acceptance as useful phrases loosely denoting a form of educational inadequacy, the exact definition of which will differ significantly in different settings. For example, Carlo M. Cipolla writes in his *Literacy and Development in the West* (Penguin Books, 1969, p. 104): 'In an advanced industrial society a person with less than ten or twelve years of schooling is functionally illiterate.' The positive, operational terms 'functional literacy' and 'functional literacy project', as used in Unesco's Experimental World Literacy Programme and elsewhere, involve a relatively precise statement of aims, methodology, and so on.
2. *Illiteracy in the United States, November 1969. Population Characteristics*, Washington, D.C. U.S. Department of Commerce/Bureau of the Census, 10 March 1971. Those having completed six years of schooling were automatically counted as literate. For a discussion of the problem in the United States, see: David Harman, 'Illiteracy: an Overview', *Harvard Educational Review*, Vol. XXXX, No. 2, May 1970, p. 226–93.
3. While educational programmes are aimed at improving literacy levels, there is a simultaneous move in the United States to simplify reading materials to a more realistic level. To give an example: in recent years the law has required cigarette manufacturers to print a uniform warning on each package of cigarettes stating that smoking is hazardous to one's health. Linguistic analysis by a group of experts showed that the original wording required an eighth-

Other industrialized countries which have been generally assuming that the problem of illiteracy among working-age adults is all but permanently solved are also beginning to uncover disturbing evidence of functional illiteracy. A recently formed institute attached to the University of Rome[1] is carrying out research on illiteracy in Italy. According to the institute's director, Dr Romano Calisi, many Italian industries and agricultural enterprises complain that youths and adults applying for work often lack the literacy skills required to handle the kind of jobs available in these increasingly industrialized sectors. The rejected applicants possess school certificates but have failed to retain enough of the literacy they acquired in school to qualify for work. Dr Calisi suggests that one reason may be that television rather than printed matter is now the main source of information and entertainment in Italy, while the telephone has replaced the letter as a means of personal communication. The institute is conducting a pilot functional literacy project for agricultural and industrial workers and for women in Umbria, a region experiencing a level of agricultural and industrial development which, the institute's staff believe, many parts of the less-developed world will reach in the next decade or so.

Education specialists in Great Britain are beginning to challenge official statistics on illiteracy. As *The Times Educational Supplement* says in a recent section devoted to problems of reading instruction in the schools: 'In official statistics an illiterate is someone who can read no better than the average seven year old. A "semi-literate" has a reading age of nine, and can read, say, the simpler sections of a popular paper, labels, signs, some forms, with precarious success. Reading experts agree that a reading age of nine is a skill easily lost without practice and does not necessarily mean that a person will be able to read with independance and accuracy after he leaves school.[2]

The National Association of Remedial Education is making the first nation-wide survey of adult illiteracy ever attempted in Britain. According to an interim report based on a sample of adults attending reading classes, more than half the country's known illiterates had left school within the previous ten years. The association's president, A. Williams, has stated: 'There is no official recognition [in Britain] of illiteracy in adults. But more than 2,000 such people attend [adult literacy] classes. Only a very small proportion of adult illiterates, however, go to classes.' Of the inmates of British prisons, 10 per cent are illiterate, and about 25 per cent are 'very poor readers'.[3]

The demands made on literacy—and hence workable definitions of functional illiteracy—are evolving not only in highly industrialized countries, but in all societies in a state of social and economic change. The factory worker in a city in Tunisia or Guatemala or Pakistan who can write a simple letter back to his village but cannot read with understanding the factory rules and regulations

grade level reading ability to decipher; this has now been changed to a more directly worded phrase requiring a sixth-grade level of reading ability.

1. International Laboratory of Experimental and Methodological Research in Literacy (LIRSMA).
2. *The Times Educational Supplement*, No. 2941, Friday, 1 October 1971, p. 4.
3. Reported in the *Daily Telegraph*, 25 August 1971.

posted on the wall or calculate the interest he owes on a loan is not for practical purposes literate.

From the above points, several conclusions emerge:

Even using minimum standards for literacy, the number of illiterates in the world is surely underestimated.

Judging from the experience of the United States and other countries where free public education has long been compulsory and universal, as well as from the impossibility of achieving universal primary schooling in many countries until far in the future, it is obviously not practical to rely on the school system alone to resolve the problem of adult illiteracy.

In modern and modernizing societies what matters is not whether the individual can pass a given test of literacy skills but to what extent the skills he possesses allow him to meet the vocational, social and civic demands made on him. The criteria for meaningful literacy differ from society to society; they can also differ from one phase of a man's life to the next.

2 The economic and social context of literacy

During the course of the First Development Decade adult literacy came more and more to be regarded as a vital component in economic development. At the same time, the apparent failure of many previous attempts to make adults permanently literate drew attention to the social context of literacy—to the fact that literacy does not exist in a vacuum, that there are literate and illiterate societies as well as literate and illiterate individuals. The pilot projects of the Experimental World Literacy Programme were established on the basis of thorough study of the economic and social *milieu* and were expected to effect changes in both.

The transitional period from the First to the Second Development Decade has seen an intensifying of interest in the economic and social aspects of adult literacy. The trend is definitely towards more careful investigation of both the complex *milieu* in which adult literacy operates and the potential of adult literacy programmes for affecting this *milieu*.

Here we present some recent findings on these two aspects of the context of adult literacy; the distinction between economic and social factors is, of course, somewhat arbitrary, as they are closely interrelated.

LITERACY, PRODUCTIVITY AND ECONOMIC DEVELOPMENT

Literacy—especially selective, work-oriented literacy—is generally expected to produce several economic benefits:

For the individual, it should improve productivity, thus increasing wages (or, for farmers, yield) and raising the standard of living.

For the industrial enterprise, increased productivity of workers should reduce costs and raise profits; in some situations, local workers may be able to replace more expensive foreign skilled labour. As for agriculture, where farmers are groped into co-operatives, they should produce more and the co-operative should be better managed.

For the nation, gross national product (GNP) should rise[1], tax revenue should

1. According to a recent publication of the Board for Fundamental Education, a voluntary organization in the United States, 'Economists have estimated that the 43 million Americans in the work force who have not finished high school could add as much as $100 billion to the GNP if they became more productive workers as a result of increased education . . .'. The Board considers about 10 million of these 43 million to be functionally illiterate.

increase, and dependence on imports—both of goods and manpower—should fall. Where widespread unemployment is coupled with a shortage of appropriately trained skilled labour, work-oriented literacy should help alleviate unemployment.

During 1969–71 the question of the economic significance of literacy has received increasing, if still insufficient, attention.

First, two important meetings were held to discuss this aspect of adult literacy: a Round Table of Bankers, Economists and Financiers on Literacy in Rome in February 1969, and a European Round Table on 'Integration of Literacy Programmes in Economic Development Projects: the Contribution of Italian Firms', in Turin in April 1970.

Second, in those pilot projects of the Experimental World Literacy Programme reaching the final phase, preparations were made to measure the specific and broad effects of adult literacy on economic development. In the newer projects a base was laid for later measurement. Thus guidelines were developed to help projects provide internationally comparable data on a number of indicators of change in literacy participants resulting directly from project programmes. Among those touching on economic change and productivity were indicators on modifications in attitudes (acceptance of change, presence of goal-oriented values, etc.); adoption of recommended practices; and changes in production, in number of durable goods possessed, and in net global monetary income.

Next, a few studies (described below) were carried out on the relation between literacy and productivity or between literacy and the development of attitudes considered necessary for modernization.

Then, in the context of the International Education Year (1970), and to celebrate International Literacy Day (8 September), Unesco issued a booklet discussing findings and opinions on this subject: *Literacy and Development,* by H. M. Philips.

Finally, many national governments, especially in the developing countries, were planning literacy activities on the assumption that literacy and development are closely related and that selective, work-oriented literacy programmes in key sectors of the economy could speed up economic growth.

Below we attempt to summarize recent findings and current opinion about the relation between economic development and literacy, especially selective, work-oriented literacy.

The individual

Everywhere the illiterate is more likely to be unemployed than the literate; as technology grows increasingly more complex, this rule can only become more applicable. For example, Colombia reports that, out of a total of 3 million people in the work force of urban areas, about 500,000 are unsuccessful in finding work; the largest percentage of unemployment (23.8 per cent) is found among illiterates. The United States reports that 'the over-all national experience shows a drop in the rate of joblessness . . . at higher levels of education'.

When employed, the illiterate usually (but not always) earns lower wages than other workers. A study made by the Junta Nacional de Planificatión of Ecuador

shows that 76.5 per cent of illiterate workers earn less than 600 sucres[1] monthly, while of workers with one to six years of primary schooling a much smaller 49.3 per cent earn less than this figure. The United States questionnaire reply states: 'In regard to the economic costs of undereducation to the society, census data indicate a direct correlation between annual income and educational attainment.' A study of workers' earnings in Brazil in 1968 shows that, depending on the region in which they live, workers with basic literacy (primary-school level) earn on an average from 22 per cent to 35.5 per cent more than illiterate workers.

That literacy in itself automatically ensures employment or higher earnings, however, does not always follow. In some countries there is also considerable unemployment among those with medium or high levels of education. A study of textile workers in Bombay shows that (according to supervisors) literate workers perform day-to-day factory duties more efficiently than illiterates and demonstrate more understanding of the production process and a more developed sense of responsibility towards their work; however, in this setting literate workers do not, in fact, earn more or enjoy a higher standard of living than their illiterate counterparts.[2]

Somewhat contradictory data came from a recent study of the effect of schooling on productivity and wages among workers in the Tunisian shoe industry.[3] Here the relationship between schooling (which assumes literacy) and productivity is unclear; amount of work experience seems equally or more important. On the question of wages, however, the data indicate that 'literacy enables workers to earn higher wages [though] this particular cognitive skill was only one of the many traits that contribute to earning capacity'. Only 18 per cent of the workers studied use reading, writing or arithmetic skills on the job; this use of literacy skills (called by the authors 'functional literacy') correlates positively with higher wages.

The literate workers covered in these two studies had acquired their literacy at school or elsewhere outside the place of work; although the content of the literacy education they had received is not described, it seems likely that it was not work-oriented. Tunisia reports that certain ex-students of adult literacy classes have continued their education and passed examinations to the point where they have been able to work as secretaries, telephone operators and journalists.

In Venezuela a small-scale experiment is in progress to measure the economic (and psychological) impact of a combined programme of economic and technical aid and education (literacy, nutrition, money-management, etc.) on family units rather than on the individual. A selected group of rural families has been

1. U.S.$1 = 26 sucres.
2. A. R. Desai and S. P. Punalekar, *Relationship between Literacy and Economic Productivity of Industrial Workers in Bombay: A Sociological Analysis.* A résumé of this study appeared in *Literacy Work*, Vol. I, No. 2, September 1971.
3. Robert C. Kelly and Ronald L. Trosper, *Education and Worker Productivity in the Tunisian Shoe Industry*, Cambridge, Mass., Harvard University, Department of Economics, September 1970 (Mimeo.). This study illustrates the difficulties of obtaining firm conclusions on the direct relationship between literacy, productivity and income even where data are gathered with care and sophisticated analysis techniques are employed.

given materials and technical instruction for setting up family production units (rabbit-breeding, horticulture, fruit-growing) along with general educational and vocational training. Various economic, social and psychological data were collected for each family at the start of the experiment; the aim is to discover if the programme will increase money income and make for more rational family budgeting, improve family nutrition, raise aspirations and strengthen family relations. The concept of family budgeting (based on minimum adequate standards) is particularly important to this experiment, which attemps to probe for deeper measures of economic change than *per capita* income, production or even productivity.[1]

The new literate will have a good chance of obtaining employment and higher earnings if literacy training is co-ordinated with job placement or upgrading. In many of the literacy education activities falling under the Adult Basic Education programme in the United States participants are helped to find jobs once they have completed a learning sequence. In Saudi Arabia any soldier or policeman who becomes literate automatically gets a promotion and a salary increment.

One way to give the individual illiterate an economic incentive to become literate is to make literacy a requirement for obtaining or holding desirable jobs or a prerequisite for access to vocational training. Many countries state that industry and the public sector generally refuse to hire illiterates. Sometimes a literacy requirement is regulated by law, as in Turkey, where a citizen without a primary-school certificate cannot occupy a post in the public sector, get a driver's licence or obtain authorization to work abroad. Under a bill covering functional literacy in Iran, the country plans to make 4 million adults functionally literate between 1969 and 1986. Three years after the literacy programme is implemented, government and private offices will no longer be authorized to employ illiterates who have not joined literacy classes, and after ten years those not having completed a literacy class will not be eligible for work permits.

It must be remembered, however, that making literacy a requirement for employment or job improvement only forces the illiterate permanently outside the productive part of the society unless, at the same time, opportunities are provided for him to acquire literacy. One solution is that used in Poland, where many enterprises hire illiterates or semi-literates but require them to achieve a primary-school level of instruction within a given period; special schools for this purpose combine general and professional education for adults. Another is to provide vocational training preceded by literacy instruction. The Instituto Nacional de Cooperación Educativa (INCE) of Venezuela offers a large range of courses, many held within industrial enterprises during working hours. Since most of these require a certificate of completed primary education for entry, INCE provides remedial education for potential trainees: in 1970 some 2,335 adults were attending elementary literacy courses, and 11,406 were in courses giving the equivalent of grades I–IV in preparation for attending vocational courses.

1. See: Karel Neys, 'An Experimental Study in Rural Functional Literacy', *Literacy Discussion*, Vol. II, No. 2, spring 1971, p. 25–33.

The production unit

From the standpoint of the enterprise, the Bombay study referred to above seems to indicate that the literate worker contributes more to production than the illiterate worker, but this premise needs more careful testing in a variety of settings. Obviously, even with literate workers, an enterprise that uses obsolete technology or is badly managed cannot thrive.

One indication of the superiority of literate over illiterate manpower is that, in general, employers tend to hire literate employees when they have a choice (unless savings in wages are considered more important than skill; illiterates will work for less). It is another matter to get companies to take responsibility for providing literacy instruction to their workers. The fact that some do so voluntarily is a good indication that, in these cases at least, literacy does affect productivity.

Here may be cited some examples mentioned in response to the 1969–71 literacy questionnaire. The Dominican Republic reports that some industries provide literacy instruction for workers. Tunisia reports that many companies organize literacy classes during working hours; if the learners finish successfully, the hours spent in class are sometimes paid. In the Niger, certain firms (public and private) organize functional literacy classes; some agree to allow workers two hours a day out of the work schedule to attend literacy courses. In Ethiopia, enterprises provide literacy programmes for workers during or after working hours. In the United States, some large private employers, especially those associated with the job-upgrading programme of the National Alliance for Businessmen, provide educational programmes on the job. Colombia reports that 121 private enterprises offer educational programmes, including functional literacy, for workers. Mali gives examples of specific effects of work-oriented functional literacy programmes within industry (for example, workers of L'Énergie du Mali no longer need be accompanied by higher-level personnel when they go out to perform certain jobs) while stating that it is too early to quantify results. In two large iron-ore mining companies in Liberia functional literacy classes designed with the help of a Unesco expert began in 1969 and 1970; classes meet three times a week for two-hour sessions and the company pays the workers for one of these two hours. Pakistan reports that during the fourth Five-Year Plan (1970–75) all industrial establishments employing 200 or more workers will be expected to set up part-time intensive progammes in verbal and numerical literacy, with the content being related as closely as possible to the worker's task and his home life. Israel reports that 'in industries more and more lessons take place during working hours in co-operation with management'.

In other cases, the government has stepped in to provide literacy education in State-owned enterprises (for example, in Ecuador and Mexico) by enacting laws requiring employers to organize classes, or by reimbursing enterprises that do so. Under Turkish law, employers with 100 employees or more must provide adult education and literacy courses. In Spain, all enterprises with illiterate employees must organize literacy classes; the worker is allowed one hour of the work-day for every hour of his free time he devotes to these classes. Workers in

the United States receive instruction in residential training centres or at the place of work; the federal government reimburses the employer for time and expense involved.

In some countries, literacy has been closely linked with the development of agricultural co-operatives—Mali, the Niger, Senegal, Tanzania and Tunisia are examples. Functional literacy in this setting is seen as a means of getting people to understand and accept the idea of co-operation and of preparing them to handle the technical, commercial and managerial problems of running co-operatives.

An unquantifiable but probably substantial amount of literacy education and related vocational training is provided by private business firms of the economically advanced countries which operate in developing countries. According to a report[1] of the Organisation for Economic Co-operation and Development (OECD): '. . . a majority of the bigger private firms with overseas business interests train company personnel, in the home country as well as overseas . . . [those trained on the spot] are mostly workers and foremen. . . . Though the foremost activity of business firms is the [vocational] training of their personnel, formal education and literacy classes are also provided in quite a number of cases.' It seems fair to assume that these firms have found literacy education of workers a solid investment.

Similarly, public or private enterprises which receive contracts for large engineering projects (for example, building of railways and dams) in developing countries are often obliged to train local workers. For example, an Italian engineering enterprise, IMPRESIT, trained over 60,000 local workers in connexion with a large number of such projects in Africa, Asia and Latin America between 1956 and 1971.[2] Of these about 70.5 per cent were non-qualified, and 12 per cent qualified workers, while about 2 per cent were employees who had some previous education. In three projects (hydro-electric works in Nigeria and Pakistan and the Kariba dam in Zambia) actual schools were established, to be used later as primary schools. (This is an interesting reversal of the pattern according to which primary schools often become the locale of adult literacy classes.) Not only workers receive instructions: the hospitals attached to the construction site also offer classes in practical hygiene for women. Courses take place outside working hours but workers are paid for attending them. They last for from two to six months; participants continue their education on the job since work experience is as important as classwork in their formation. On the basis of these years of experience IMPRESIT summarizes the reasons for this instruction as follows: 'The higher the level of apprentices' education and skills, the greater their readiness and capacity to deal with a wide range of problems and their determination to get ahead. . . . The educated worker produces more, precisely because he is better able to handle technical equipment and because he aspires to knowledge, qualification and higher wages.'

1. *Aid to Education in Less Developed Countries*, Paris, OECD, April 1971.
2. See: *Vocational Learning in Major Civil Engineering Works and its Repercussions on National Literacy Methods* (document prepared for the European Round Table mentioned above (page 29)).

Although the costs of such instruction are high, the document states that in projects of this type 'it is always more economical to train local workers than to recruit European technicians and, in this sense literacy activities represent a profit rather than a loss'.

Further, as a result of these courses and the work experience that follows, workers have developed new habits of thought and they and their families have acquired new nutritional practices and become familiar with the use of modern medical resources. The document does add, though, that worker training in connexion with large development projects could be much more efficient and economical if provided before actual operations commence.

The nation

From the standpoint of the nation as a whole, most countries answering the 1969–71 literacy questionnaire stated that adult literacy education has a beneficial effect on productivity, standard of living and economic development; most also said they could not quantify this effect or even really prove it—it is taken as self-evident.

For a national government, a view of literacy education that stresses economic consequences gives a clear guide to the use of resources for this form of education. The questionnaire response from Argentina indicates how this emphasis can develop: 'Since 1969, literacy has been considered to be a stage in adult education, the illiterate adult being directed towards a complete training which permits him to improve his living conditions; nevertheless, it cannot be said that a true contribution has thus far been made to the economic activity of the country.

'Vocational training of adults was introduced in 1970 thanks to the creation of the Mobile Educational Centres for Vocational Training and of the Secondary Level Educational Centres which make specific provision for adult vocational training.

'For the first time, adult education is being programmed and planned, taking into account labour needs at the national, regional and local levels. The activities of these centres take place where technological change and a process of industrial expansion require the vocational training of adults.

'In this way literacy can integrate itself with a concrete programme of economic development at the adult and regional levels. It is considered by the adults as a means to attain vocational training.'

However, as the report of the Round Table held in Turin comments, an approach to literacy education that is justified exclusively on economic grounds may, if too narrowly conceived, result in neglect of other important sectors of the population. The report suggests that governments should keep in sight better over-all use of total resources as well as the opportunity for immediately increasing productivity in specific areas. For example, the Tunisian reply mentions that two-thirds of the 18,000 tractors in the country become unoperational prematurely because Tunisian farmers lack the skills required to use and service this machinery properly; one of the goals of functional literacy in Tunisia is to

impart these skills so as to realize a better return on investment in farm machinery.

LITERACY, SOCIAL CHANGES AND MOTIVATION

Adult literacy exists in a social and cultural, as well as an economic, context, and it is becoming increasingly evident that any attack made on illiteracy that ignores this context is likely to be a failure.

Sociologists and cultural anthropologists are helping to design literacy programmes for adults in given settings by asking certain questions about these settings, for example:

What does it mean to be illiterate—in terms of social status, personal image, aspirations for the future, etc.?

How do other members of the society (those who are already literate, those who have no intention of becoming literate) view adult literacy efforts, and how do these views affect such effects?

What motivations lead illiterates to adult literacy classes and cause them to stay there?

The social and cultural setting

Replies from the 1967–71 questionnaire show a general and deep awareness of the importance of considering the social and cultural context in designing literacy education. No longer is it being universally assumed that all illiterates are equally eager to learn to read and write, and that all expect the same results from the acquisition of these skills. Numerous questionnaire replies point out that literacy programmes must take into account the illiterate's attitude towards adult education, his expectations, his desires, the use to which he can put whatever literacy skills he acquires.

Many countries with high illiteracy-rates note that to be illiterate, especially in rural areas, is to belong to the majority. Where there is nothing to read, where oral communication and simple mental calculation have always sufficed and continue to suffice for everyday activities, where the conditions of life show little sign of changing, the potential learner sees no clear need for literacy. In urban areas in these same countries, on the other hand, the desire for literacy is often very strong. Migrants to the city find that the better jobs go to literates; also, in towns and cities the illiterate constantly sees evidence (newspapers, signs, advertising) that other people read and that reading is useful. A third set of psychological reactions is found in societies where most people are literate (in North America and Europe, for example); here, the illiterate, especially if he has attended school, is ashamed of his disability, and the problem is to reawaken his desire to learn while banishing the defeatism built up through years of failure.

Literacy programmes must also consider the attitudes of others in the illiterate's society towards such programmes. Women, for example, are sometimes not allowed to attend classes until their families and husbands are assured that they will meet only other women and that learning will not upset the social order.

Literacy and social change

While a knowledge of the social and cultural context is important in designing literacy programmes, the programmes are also often expected to modify this context.

In the Experimental World Literacy Programme, the first step in setting up a pilot project is the environmental study which covers, in addition to the economic factors described above, the beliefs, habits, customs, as well as the technological and social competence of the target population. On the basis of this study, and in line with national development aims, a number of objectives for the pilot project are established; among these are changes in attitudes and social behaviour. Midway through the project and again at its end, learners are interviewed to discover if attitudes and behaviour changes have indeed taken place. Objectives vary, of course, from project to project according to local situations. Some factors being studied are: acceptance of change, presence of goal-oriented values, empirical outlooks. Among socially or culturally derived patterns of behaviour which functional literacy is expected to foster are: participation in community activities, adoption of recommended practices such as better health and nutritional habits, and the sending of school-age children to school.

A recently developed approach to the use of literacy programmes in bringing about a specific social practice (family planning) is called 'functional education for family-life planning'. The idea behind this approach is that family planning is not so much a matter of the number of children born but of the family's ability to provide for these children; thus, functional literacy for adults includes information and skills required to improve the entire context of family life: family planning, nutrition, health, family budgeting, exercise of civic responsibilities and, in some cases, vocational training. With some aid from World Education Inc., demonstration family-life planning programmes began during 1971 in Honduras, India, the Philippines, Thailand and Turkey.[1]

From preliminary results of testing in the Unesco pilot projects, as well as other research done on this subject, it seems clear that the process of becoming literate does work changes in attitudes and aspirations.[2] One social consequence of adult literacy widely cited is improvement in the educational prospects of children. Many questionnaire replies from countries where families often keep their children out of school mention that literacy education frequently changes parents' attitudes towards the value of schooling. In countries where schooling is compulsory, adult literacy can affect the child's success in school: Italy's LIRSMA is currently conducting a study of the influence of material illiteracy

1. See *Literacy and Family Planning* (brochure available from World Education Inc., 667 Madison Avenue, New York, N.Y. (United States)).
2. See, for example: Everett M. Rogers (in association with Lynne Svenning), *Modernization Among Peasants*, New York, N.Y., Holt, Rinehart and Winston, 1969, especially Chapter 4. Studies of peasants in Colombia and India described here point to a significant correlation between achievement of literacy and various personal traits which the authors believe favour modernization. The authors caution, however, that literacy might be one of several interrelated variables: for example, people who already accept new ideas the most freely by nature may be those most likely to attend literacy classes.

on children's school performance. The United States reply comments: 'Our experience in America clearly indicates that a step ahead for parents is likely to mean four or five steps ahead for the children—a great and rewarding increase is upward mobility.'

In general, however, social changes are difficult to describe, and the way in which they are expressed depends very much both on the design of the literacy teaching programme and on external circumstances: one of the sociological results of literacy education cited by the People's Republic of the Congo and the Dominican Republic is that this education gives new meaning to rural life and encourages adults to remain in their farms and rural villages; the questionnaire response from Ecuador, on the contrary, notes that literacy education in rural areas tends to contribute to the exodus of the working-age population to urban areas, as literacy creates and increases expectations.

Many countries replying to the questionnaire remark that literacy education is the first step in disrupting a state of mind—called 'passivity', 'conformism', 'alienation'—found in rural populations who feel there is no hope of improving their living conditions. Recent thinking about the social and cultural significance of literacy education for such people has been greatly influenced by the writings and teachings of Paulo Freire, based on his educational experiences in Brazil and Chile. Freire sees literacy education as a process through which the illiterate becomes aware of his own creative powers and comes to view literacy as a tool for liberating and expressing these powers. For Freire, literacy education involves a very basic change in the learner's self-image and in his view of society and his place and role in it.[1]

If literacy education is to bring the illiterate out of his shell and allow him to assign himself an active role in society, society must be ready to accept his contribution. But this is not always the case. The study of Bombay textile workers cited above produces evidence that among the workers studied, the literates were more aware of their social duties and rights, took more active part in social organizations, and tended to approach problems in a more inquiring spirit than illiterate colleagues. Yet the structure of the textile mills did not allow literate labourers to earn more than illiterates, and many were becoming apathetic as a result. Many of the questionnaire responses insist that in certain situations literacy education can only have a constructive impact if it is accompanied by basic social reforms: the example most often cited is land reform.

Another point brought out by the questionnaire replies is that literacy education can only truly affect the way people live, whether it is the economic or cultural aspects of their lives, if it is followed up by continued education. As the reply from Ecuador puts it: 'For a literacy programme to affect habits, traditions, family life, etc., it must be oriented towards—and integrated with—a broad programme of adult education in which the adult is truly the subject of his own education thanks to a critical awareness of his situation.'

Governments or groups concerned with literacy education do not always agree on the kinds of changes in social and cultural attitudes and behaviour

1. Paulo Freire, *L'Éducation: Pratique de la Liberté*, Paris, Les Éditions du Cerf, 1971.

which literacy programmes should attempt to bring about. While most functional literacy programmes strive to foster a modern outlook and understanding and acceptance of change, some put the emphasis on preparing the literacy learner for new social systems while others stress means of increasing production and/or consumption of goods, and still others combine the two objectives. At the same time, some countries feel that future-looking plans should not ignore national traditions; this outlook is well expressed in the response from Senegal: 'If literacy is to change certain habits, it must refuse to destroy the traditional culture, and must be carried out in national languages precisely in order to transmit this culture in other than oral ways.'

Motivations and attitudes towards literacy

For the adult who works hard on the land, in a factory, or within the home, embarking on the major educational effort of acquiring literacy skills requires an enormous commitment of time, energy and hope. Many countries in their replies suggested that such a commitment can be reasonably expected only when concrete results are clear—for example, when literacy is combined with acquisition of technical knowledge and skills that lead to higher productivity and better earnings.

Economic gain is not the only strong motivation, however; the list of reasons why adults want to become literate is long and varied. Some of these are quite specific: often cited, for example, is the desire of parents to understand and help with their children's school-work. Another is the desire to write letters to a family left behind during migration in search of work. Still another, especially for women in isolated areas or areas where social life is severely restricted, is the need for the social contacts which a literacy class provides; also, in some countries, literacy makes a young woman more marriageable. On the other hand, one women's organization points out that by concentrating on literacy education for women it indirectly provides motivation for men to join classes—through pride, the husband of a literate woman does not want to be outdone!

Clearly, literacy programmes must take into account the question of why people are likely to be attracted to them. A certain amount of research has been carried out on this matter in the context of programme design, but it seems likely that many literacy programmes are devised according to notions of what illiterate adults should want rather than what they actually do want.

At the same time, literacy programmes must also consider many practical aspects of potential learners' lives. The 1969–71 questionnaire asked some specific questions about the location and scheduling of literacy classes: where they were being held and at what time of the year. These questions may seem trivial until one looks at the findings of evaluation studies of literacy programmes: a main reason given by learners and teachers for disappointing registration, poor attendance and drop-out is that adult literacy classes were held at places and times not accessible to the potential learners.

As mentioned earlier in this chapter, many Member States report that some classes are organized at places of work, whether in offices, factories, or, as the Burma reply describes, 'in the fields, on the sandy beaches, in the cow-sheds,

under the shady trees'. Other locations that are often used and would be convenient to learners are specially constructed adult-education centres (sometimes built by students themselves), co-operative centres, and churches. The schoolhouse—long-time home of adult literacy activities—is still used in many countries.

Sometimes ingenious solutions are required to allow adults to continue attending classes. In Israel, according to the former head of the Israeli adult literacy campaign, some women were not attending classes as literacy centres because their husbands were complaining that when they did so they neglected their housework. The centres purchased washing machines and announced that women learners could bring their dirty laundry during class hours. While the laundry was being washed, the women attended classes where, among other activities, they practised cooking new dishes from printed recipes. With washing getting done more quickly and menus improving, husbands could hardly object.[1] Another solution, especially where illiterates are in the minority and are ashamed of their disability, is for professional teachers or university students to go directly into the home to give personal instruction; Hungary reports using this method.

Special problems are posed by potential adult learners who do not have fixed residences. The Niger reports literacy programmes for nomads which take into account their migratory way of life. Several European countries with literacy programmes for gypsies must deal with this same problem if their programmes are to be effective. A study of literacy courses for immigrant workers in France[2] points out that a main reason for drop-outs from classes is the movement of these workers from one work site to another. To remedy this difficulty the report recommends co-ordinating literacy courses at the national level, so that workers can find another similar class after a move, and organizing more classes at the place of work (out of 949 courses reported by the study, only 25 were being held within work sites).

The time of year at which classes are held is especially important in rural areas, since cultivators are very busy at certain periods and less at others. Here the responses are not very encouraging; many countries reply that the literacy teaching calendar depends on the school year, which does not always correspond to the cultivation year. This either means that classes are held when school is open and teachers are present, but necessarily after school hours, or they are held in the limited period of school vacations, when teachers and students are free to act as instructors. In either case the adult learners' convenience is not the first consideration. On the other hand, a number of countries with work-oriented literacy programmes integrated into economic development projects report teaching calendars adjusted to the needs of special groups of learners. Zambia, for example, notes that its literacy teaching calendar corresponds to the agricultural calendar; classes start after the rains, when learners are relatively less busy, and close just before the main cultivation season begins.

1. Interview with David Harman, reported in *Literacy Today*, No. 3, September 1970 (publication of the Literacy Information Centre, New Delhi).
2. *Alphabétisation et Promotion des Migrants Étrangers en France*, Paris, 1971 (booklet issued by the French Commission for Education, Science and Culture).

From all of this it seems clear that literacy programmes can only benefit from being built on a thorough study of the desires, expectations and aspirations of potential learners as well as the possibilities for economic and social development afforded by the area in which the programme will operate. This reasoning is the basis for the learner-centred, problem-solving techniques of building and conducting literacy programmes for adults described further on in this study—techniques which seek to involve the learner himself in defining his learning needs and finding solutions to them.

3 Functional literacy and the role of the United Nations family

Since its creation, but with special vigour since the latter half of the 1960s, Unesco, with the colaboration of other Agencies within the United Nations family, national governments and international non-governmental organizations, has been offering guidance and technical assistance to adult literacy activities in many parts of the world. The most important concentrated effort to this end has been the Experimental World Literacy Programme, largely financed by UNDP and the national governments of countries in which the programme operates.

This chapter reviews the work of Unesco and other United Nations Specialized Agencies during 1969–71 to improve and expand adult literacy programmes. It starts with a brief description of the functional literacy concept, since this concept inspires the whole Experimental World Literacy Programme and is enriched and refined in day-to-day practice.

FUNCTIONAL LITERACY—WHAT DOES IT MEAN?

There is no standard and final definition of functional literacy; 'functional' indicates an approach and a process, not a formula. Nevertheless, this approach does have several distinct and indispensable characteristics, especially when compared to so-called traditional literacy work.

Integration with development

Whereas traditional literacy can be offered in isolation, functional literacy must be part of a broader development effort; provided in a vacuum it only disappoints expectations. Making people functionally literate often requires changing the economic and social possibilities open to them.

Participants

While traditional literacy is, in theory at least, aimed at all illiterates, functional literacy is consciously selective. It is offered to adults who can draw the most personal benefit and make the greatest contribution to national economic and social progress as a result of becoming literate. To put it another way, functional literacy is aimed at those groups whose illiteracy presents the most immediate

block to progress and who stand the most chance of using and thus retaining literacy skills once they are acquired.

Method

Whereas traditional literacy is usually diffuse, functional literacy is intensive. Instruction is concentrated—for example, in two-hour sessions three times a week—so that the learner makes rapid progress, uses his new acquisitions quickly, and is thus motivated to continue learning.

Content

Whereas traditional literacy teaches only reading, writing and sometimes arithmetic, functional literacy transmits critical work-oriented skills and knowledge as well as literacy skills. Further, the work-oriented content of the functional literacy programme is usually completely integrated with the literacy component. That is, words used for the teaching of reading and writing, exercises used to perfect the learner in calculation, are all drawn from the learner's daily work life and connected to work-oriented problems the literacy programme is designed to solve.

Basic aims

Whereas the aim of traditional literacy is to provide the learner with certain skills for essentially humanistic motives, the over-all aim of functional literacy is not just to impart skills or even work-oriented knowledge, but to change the learner's whole approach to his world. A functional literacy programme should equip the new literate to recognize, understand and subject to critical analysis the reasons behind his actions, whether these be actions he performs at work, at home, in the community or in other settings. It should prepare him to adapt to a life of change in which traditions, customs and beliefs are constantly being challenged without causing him to lose his own identity.

Programme development

Whereas traditional literacy teaching materials are developed by pedagogical experts (or are sometimes simply those used by primary-school children) and are meant to suit all adults learning in the same language, each functional literacy programme is unique in as far as each is built up from a group of learners' specific learning needs. (As one Unesco expert puts it: 'Functional literacy is, as is well known, an undertaking in tailor-made training.') Thus, workers in a factory require one set of materials, cotton farmers another, fishermen another, mothers and housewives still another, and so on. Since these programmes also convey work-connected knowledge and skills, teaching materials must cover this information as well as provide exercises in literacy skills. To do so, functional literacy programmes rely on other forms of teaching materials and other teaching techniques in addition to those used in the traditional class-

room: for example, group discussion, demonstration of practices to be adopted, films, radio.

Responsibilities and personnel

Whereas responsibility for organizing traditional literacy falls naturally to school authorities and responsibility for teaching to primary-school teachers, functional literacy involves a wide variety of specialists and groups in selecting learners and designing, organizing, administering and teaching programmes. Authorities concerned with social and economic development, experts on industrial and agricultural problems, teachers able to pass on technical knowledge as well as literacy skills—these are some of the people required.

Follow-up and continued education

Whereas traditional literacy considers the adult to be literate once he can pass examinations at a given level, functional literacy views the introduction to literacy skills and necessary work-oriented knowledge as a first step in a continuing process of learning. Not only must the learner retain what he has acquired, he must also use the new means of acquiring information and the new reasoning and critical powers at his disposal to improve his competence and widen his intellectual and social horizon.

EXPERIMENTAL WORLD LITERACY PROGRAMME

The Experimental World Literacy Programme was established to try out, examine and develop the concept of functional literacy. Thus, it is both an experimental and an operating programme. Further on in this publication we describe the programme's recent experience in several specific areas: teacher training, design of teaching programmes, development of teaching materials, and so on. Here we present a broad description of the programme and sum up progress to date.

Overview of the programme

The main pilot projects of the programme fall into two categories: (a) projects implemented by national governments and Unesco (although Unesco is the sole executing agency, these sometimes receive technical assistance from one or more of the other United Nations Specialized Agencies, such as FAO, ILO and the World Health Organization (WHO)); and (b) agricultural development programmes implemented by FAO with a Unesco literacy component.

The majority of these pilot projects—those in Algeria, Ecuador, Ethiopia, Guinea, Iran, Madagascar, Mali, the Sudan and Tanzania—belong to the first category. In the second category fall the projects in Afghanistan, where a functional literacy component is being integrated into a government/FAO agricultural credit and co-operative programme; in India, where a functional literacy component is part and parcel of a government/FAO programme for production

of high-yield varieties of food crops; and in Syria, where Unesco is providing the functional literacy component in a government/FAO agricultural-development project.

To these twelve projects should be added a thirteenth: the functional literacy pilot project in Venezuela, which is run exclusively with national resources and where only the evaluation component is financed by the United Nations family.

The programme also includes functional literacy projects receiving financial aid from sources other than UNDP. In Kenya, the Swedish International Development Authority (SIDA) is helping to finance a rural development project implemented by FAO, in which two Unesco experts are developing a functional literacy component. In Zambia, two Unesco experts are attached to a functional literacy project to improve production of maize which is aided by money raised by the Secondary Schools Students Association of Denmark and Norway. In Niger a Unesco expert is working in a functional literacy project for rice growers which receives funds from a Swiss foundation, the Fondation Internationale pour la Promotion Technique Accélérée de l'Homme Moderne (FOPOTEC).

These, then, are the projects within the Experimental World Literacy Programme. They take place in very different surroundings, they are planned to last for varying periods, and the amount of aid provided through Unesco differs from one project to the next. However, they all belong within the programme because they all share a common purpose: to systematically test the application of the concept of functional literacy so as to produce information that is comparable from one project to the next and that will allow some conclusions about the programme as a whole.

In addition to these projects Unesco experts are sent out under the Technical Assistance Programme to aid national governments in designing their own functional literacy programmes. As of June 1971 Unesco experts were serving in the People's Republic of the Congo, Guatemala, Laos, Paraguay, Saudi Arabia, Senegal and Togo.

The experimental programme in 1971

During the period 1969–71 the Experimental World Literacy Programme has passed through the initial stage of planning and preparation to enter, in the case of many of the projects, a stage of full operation and preparation for a final phase.

This pattern of progress is indicated by the fact that, whereas in September 1969 about 25,000 adults were following functional literacy classes within the experimental projects, by 1 July 1971 this number had risen to over 235,000. By this latter date the projects had trained about 8,000 instructors in addition to the supervisors, administrative staff and pedagogical advisers concerned with activities.

Over-all quantitative growth of the projects was slower than originally expected. This was partly the result of too-optimistic planning at the beginning; in most projects where this was the case original plans of operation have been revised to make them more realistic. Delay also arose from the fact that putting into operation functional literacy programmes designed to fit the individual *milieu*

and to provide answers about the effectiveness of the concept of such programmes proved to be more difficult than originally foreseen. From these difficulties a number of lessons have been learned. For example, experience has shown that, like any programme of sustained development, functional literacy programmes require a number of pre-conditions if they are to operate fruitfully: a rational, consistent development policy with well-defined objectives and the required structures, renovated ideas and methods of administration, availability of new means of using human and material resources.

Having overcome or adjusted to difficulties in the initial stages, the pilot projects are now making important contributions in areas such as teaching programmes and materials, training of personnel and evaluation of projects.

Teaching programmes and materials

As the majority of projects moved into the operating phase, use was made of a large number of diversified teaching programmes designed for workers in individual socio-economic *mileux* (specific industries, cultivation of various crops, cattle-raising, fishing, handicrafts). Several projects had also produced teaching programmes specifically for women, covering nutrition, hygiene, child care, etc.[1] All of these programmes included visual aids and co-ordinated guidance materials for instructors. Producing, implementing and improving teaching programmes have resulted in the development of a methodology for functional literacy which can be applied in designing further teaching programmes carefully suited to the *milieu*.[2]

Training of personnel

The projects had to overcome two main staff training problems. One, common to all developing countries, was lack of qualified personnel; thus, in some cases instructors and monitors had to be trained from scratch. Another, common to all innovative programmes, was the need to instil an understanding and acceptance of the concept and practices of functional literacy in all personnel concerned with the project.

Several solutions to these problems were found. Teachers were sought from among people who had the most experience to offer. In some cases the projects were able to enlist the services of extension personnel such as agricultural or health specialists. In others they turned to literate factory foremen or farmers. In still others primary-school teachers were recruited. All of these groups received general training in how to teach adults and specific training in how to use a particular functional literacy teaching programme.

To solve the broader problem of giving those directly concerned with the projects an understanding of the concept of functional literacy and its applica-

1. It should be noted that in some projects women account for a high percentage of learners in agricultural and handicrafts classes as well.
2. A by-product of the programme is the production of a methodological guide: *Guide Pratique d'Alphabétisation Fonctionnelle (Une Méthode de Formation pour le Développement)*, Paris, Unesco, 1972.

tion, the projects have devised a training device called the operational seminar. This is described in detail in Chapter 5; here it suffices to say that the main principle of the operational seminar is that participants, working intensively for a period usually lasting three weeks, learn by actually constructing and implementing a functional literacy programme for a given *milieu*. At the time of writing, operational seminars have already been held in Colombia, Costa Rica, the Arab Republic of Egypt, Mexico, the Sudan, Tunisia and Venezuela.

Training for functional literacy also receives strong support from the activities of the two Regional Centres for Training for Community Development in the Arab States (ASFEC, located in the Arab Republic of Egypt) and Latin America and the Carribean (CREFAL, located in Mexico). In 1969 personnel of these centres were retrained and the centres were transformed into Regional Centres for Functional Literacy in Rural Areas. Each trains administrators, organizers, planners and training officers for the region, and produces prototype teaching materials, carries out research and advises national literacy programmes. CREFAL and ASFEC both organize a six-month training course each year and intensive shorter courses, seminars and workshops as needed. In mid-1971 six Unesco experts were working at ASFEC and an equal member at CREFAL. Both centres have organized and taken an active part in operational seminars held within their regions.

Evaluation

When the pilot projects began, other literacy workers had already grappled with problems of designing learning programmes, constructing materials and training teachers (though for traditional, not functional, literacy) but no one had set up a series of carefully controlled experimental projects designed to discover if, how and when a given approach to adult education worked. This was the role of evaluation within the pilot projects

It is not surprising, therefore, that the evaluation aspect of these projects has presented great difficulties. Since the idea of evaluating an on-going project was itself novel, the way to proceed was not always clear but had to be discovered as the projects matured. By now, however, evaluation of most of the projects has passed through the preliminary stages of setting out objectives and devising systems for data reporting and is approaching the last stage: gathering final data, analysing these and drawing conclusions. During 1971 reporting and analysis procedures were standardized so that final data will be comparable between projects and allow some over-all conclusions about the Experimental World Literacy Programme as a whole. Just as methodologists working in the projects have devised a methodology with applications for other functional literacy programmes, the evaluation procedures developed by the project should have application to other experimental teaching programmes.

THE COLLABORATION OF NON-GOVERNMENTAL ORGANIZATIONS

In adopting the Experimental World Literacy Programme at its thirteenth session in 1964, Unesco's General Conference stressed the importance of the collaboration of non-governmental organizations in promoting literacy activities

and their participation in the Experimental World Literacy Programme. Since then Unesco has assisted in the organization by non-governmental organizations of three regional workshops to explore the concept of functional literacy and permit an exchange of experience between literacy workers. Following those in Tanzania (1966) and Colombia (1968), the third regional workshop, for literacy workers in Asia, took place in Ceylon in 1970 under the sponsorship of the World Association of Girl Scouts. Its theme was 'Literacy as a Factor in the Civic and Political Education of Women'.

Unesco also provides aid to non-governmental organizations for programme development, training, dissemination of information and organization of meetings. During the 1969–71 period, for example, Unesco participated in the World Trade Union Conference on Functional Literacy organized by the World Federation of Trade Unions in Cyprus. Also with Unesco aid, the International Alliance of Women and the Associated Country Women of the World (ACWW) organized a regional seminar in India on literacy as a foundation of development, and the World Federation of Teachers' Unions organized a seminar in the Sudan on functional literacy and the role of teachers for representatives of teachers' unions from twenty-six countries.

RESEARCH AND DISSEMINATION OF INFORMATION

While the experimental programme's pilot projects have of course carried out a great deal of research directly connected with the work of these projects, Unesco has also sponsored several important research studies outside the context of the projects. Among those completed during the period under review are studies of retention of literacy in India and Tunisia and of the relation of literacy and productivity in Bombay textile factories (the findings are described in Chapter 2). Unesco has been exploring with several universities and institutes areas for further co-operation in basic research on adult literacy and its relation to economic and social development.

During the period under review the International Institute for Adult Literacy Methods, established in Teheran in 1968 by the Government of Iran and Unesco, became operational. The institute is designed to disseminate knowledge and experience on new approaches to adult literacy. It is amassing and cataloguing an important collection of documents, papers, teaching materials and the like, and has also carried out a survey of literacy programmes, results of which have been published this year. The institute issues two publications: a quarterly, *Literacy Discussion,* in French and English, which includes articles on various aspects of adult literacy and descriptions of programmes in progress, and *Literacy Work,* published bi-monthly, containing reports, long abstracts and an annotated bibliography.

Another source of information and news about literacy activities is the *Literacy Newsletter,* issued regularly as a quarterly in French, English and Spanish by Unesco since January 1970. During 1969–71 Unesco also published several pamphlets on functional literacy and the Experimental World Literacy Programme.

PROSPECTS FOR THE FUTURE

During the Second Development Decade, the Experimental World Literacy Programme will build on past experience in developing even closer links between functional literacy and development.

As some of the pilot projects of the experimental programme come to an end, with the knowledge gained being transferred to the national literacy programmes of the countries in which they operate, others will be beginning. New projects will be oriented, by and large, to contributing to the elucidation of important aspects of functional literacy as yet insufficiently explored by the programme—for example, the nature of post-literacy activities within the context of functional literacy programmes.

The trend towards co-operation between specialized agencies will continue: for example, Bolivia, Ecuador and Peru are currently undertaking a large multinational project for the integrated development of the Andean communities, and the three governments are to receive UNDP assistance over a two-year period in formulating and implementing co-operative policies and programmes for this project. ILO is the executing agency of the assistance effort, while the United Nations, FAO, Unesco and WHO will participate. One of Unesco's contributions will consist of technical help in designing a functional literacy component.

Evaluation will continue to play a vital role in the programme, providing findings and conclusions about projects drawing to an end, and laying the basis for evaluation of new projects. Concomitantly, Unesco's task of supporting research on adult literacy and disseminating the findings of project evaluation and other research will grow in importance.

Another very important step lying ahead is investigation of the possibility of adapting the methods and techniques of functional literacy to other areas of education. Unesco's last General Conference (1970), in the single resolution dealing with literacy, 'invited Member States and the Director-General to encourage research and experimentation concerning the adaptation of new methods and techniques of functional literacy to regular and systematic instruction, and their utilization in connexion with experimental projects designed to promote lifelong education and to remodel the traditional educational systems'. Thus, coming years should see a broadening of the activities of the Experimental World Literacy Programme as well as widespread application of the functional approach to education.

4 National policies and organization for literacy

The real influence of new ideas about adult literacy is best measured at the level of national policy and organization for literacy activities. The 1969–71 period has seen a decided trend towards adopting national policies that integrate adult literacy with development planning. To varying degrees these policies also accept a functional approach to literacy education. A related trend is the organization of literacy activities to allow for the participation of all parts of the society concerned with development of the adult population—from planners, experts in industrial and agricultural production and specialists in adult education to teachers, local leaders and potential learners themselves.

NATIONAL POLICIES: LITERACY AS A COMPONENT OF DEVELOPMENT

Until recent years it would have been pointless to ask most Unesco Member States to define their literacy policy. All countries would have agreed that literacy was a basic human right. Most nations, however, were counting on an expanding school system to solve, eventually, the problem of adult illiteracy. Some had decided that the schools would take too long and embarked on government-sponsored mass campaigns to eliminate illiteracy among the adult population.

In the last few years the weaknesses of a mass approach to literacy, and the incapacity of the school systems of many countries to absorb and give a solid preparation to all school-age children, have become more and more apparent. Simultaneously, the role of adult literacy in national development has been receiving increasing attention.

Replies to questions about literacy policy in the literacy 1969–71 questionnaire, as well as other sources, indicate that these factors have caused many countries to develop an official policy towards adult literacy or revise existing policies during this period. One picture of the kind of evolution in thinking about literacy apparent on the national level comes from an excerpt from *La Promotion Humaine*, a document sent by the Government of the Niger with the 1969–71 questionnaire: 'Developments over the last five years have gradually impelled literacy workers to see literacy *techniques* as an element in a permanent process of extension work among the people. Literacy is therefore seen more and more as a *tool*—undoubtedly of great value *but, like all tools, needing to be used.* This realization has led the literacy services over the last two years to

concentrate expressly on *functional* literacy projects within the framework of co-operatives, so as, on the one hand, to ensure that the maximum benefit is derived from those peasants who are already literate and, on the other, to sustain the motivation of those peasants who are in the earlier stages of literacy.'

Many other countries note a recent change in thinking along these lines, as can be seen from the following quotations.

'Prior to 1969 [literacy] consisted of teaching illiterates to read, write and count in primary school classes in the evening. Since 1969, it has had not meet the demands of the country's industrial, handicraft, economic and social development.' (Republic of Viet-Nam)

'The view of literacy has changed and what was once considered as an end in itself is now seen as a means of achieving an improved standard of living. Unesco's concept of functional literacy has been accepted.' (Mexico)

'There has been a development of the theoretical aspect of literacy in the sense that mass literacy work using traditional teaching methods and the same human and material resources employed in primary education has gradually given way to selective and functional literacy work.' (Tunisia)

'In the beginning the literacy programme was aimed towards the eradication of illiteracy and thus the emphasis was mainly upon the ability to read and write. But since 1969 the idea of functional literacy has been taken up and incorporated in the literacy programme. Now literacy does not imply reading and writing as such alone, but has to include the functional aspects as well.' (Thailand)

'As of 1 January 1971, the literacy policy of the Government has been exclusively oriented towards functional and selective literacy linked to the priorities of the country's economic development.' (Mali)

Many countries answering the questionnaire stated that plans for adult literacy are intimately linked with over-all planning for economic and social development. For example, describing the country's ambitious national development plan in effect since 1971 Guatemala adds that: 'In view of these purposes and activities, adult education—including literacy— becomes truly concrete because the adult is, potentially, the only direct and immediate factor of development.'

Three other countries in which adult literacy plans are closely linked with over-all development plans report as follows:

'The country is following a policy of massive literacy, linked to the priorities of development.' (Ecuador)

'At present, isolated literacy programmes are no more conceivable than development programmes without literacy. In their development plans, such sectors as agriculture, mining, fisheries, industry, trade, etc., give priority to literacy activities.' (Peru)

'There is a definite correlation between the literacy policy and the national policy of providing employment opportunities for the complete labour force.' (United States)

In at least two cases—Burma and Chile—literacy is seen as a means of social, cultural and political transformation; Chile speaks of 'a policy of massive literacy for the worker in the framework of a vast national mobilization'.

For all these countries, literacy is no longer an end, but one of several means to a variety of desired ends.

A common pattern seems to be a mixture of traditional literacy programmes (that is, non-selective, using traditional teaching materials and methods) and selective, work-oriented projects, the latter sometimes conducted with the assistance of Unesco. Thus the Niger states that: 'Literacy work in Niger aims to be far-reaching (to reduce illiteracy throughout the country) and, for some years past, has adopted a functional approach linked to development priorities.'

Argentina notes, in addition to a massive programme, a micro-experiment in thirty schools 'with a new curriculum, adapted to the psycho-physical necessities of the adult, in order to accelerate the learning-training process and to replace the notion of school as an institution by that of school as a function'.

Between 1970 and 1973 Algeria plans to make 1 million adults literate through a mass campaign, while 100,000 people, all engaged in agricultural or industrial production, will follow functional literacy instruction which will include pre-vocational and vocational training as well as academic, civic and political education, Kuwait, while aiming at widespread literacy, reports a pilot functional literacy programme in an agricultural setting; if this pilot programme is succesful, the functional approach will be adopted in other sectors. Bolivia, the Dominican Republic, Ethiopia, Guatemala, Iran, Jordan, Liberia, Thailand and Zambia are other countries reporting a mixture of selective and massive approaches. In a variation of this policy of mixed techniques, Tunisia, while embracing the idea of functional literacy, makes a distinction between systematic functional literacy for the majority of illiterates and specialized functional literacy for different sectors of production, e.g. agriculture, handicrafts, fishing, various industries, commerce, administration.

Despite the ferment of new ideas about literacy, the notion that adult literacy education is in some way equivalent to a primary-school education seems difficult to shake off. Many countries still offer a primary-school equivalent certificate as the main goal towards which the adult learner is expected to work. A small number state flatly that the aim of adult literacy is to compensate for a lack of childhood schooling. However, the concept of adult education as separate and different from school education is implicit in many of the programmes described by Member States even where the terminology used has not yet changed. Few countries, though, seem to have raised the question as consciously as the United States, which reports that: 'The U.S. Office of Education in a new approach to adult education is developing an Adult Performance Level (APL) which will replace elementary grade equivalences. It will be based on a clearly defined delineation of adult reading, writing and computational requisites as well as related to functional goals.'[1]

On the other hand, many countries do show a sharp awareness of the concept that adult literacy is only a beginning, a first step. 'Permanent' or 'continuing' education is mentioned frequently in the reports of Member States on their

1. To develop the APL, teams of research assistants were sent out to farms and factories to collect empirical data on the reading, writing and computational skills and the general knowledge required for a variety of lower-level occupations listed in the U.S. Department of Labor's *Dictionary of Occupational Titles*. These data are now being analysed and a general statement of criteria for adult functional literacy will result, which, it is hoped, will be legislated as an amendment to the current federal legislation on adult education.

literacy activities. Argentina, Chile, Guatemala, Spain and the United States, among others, refer specifically to the idea that, as the U.S. report puts it, '... optimally, literacy programs should form the first stages of a continuing life-long adult education'.

To sum up, awareness of new ideas about literacy, whole-hearted or partial adoption of some of these ideas, more or less cautious experimentation with pilot projects for selected groups—these signs of change can be detected in the official literacy policies of a large majority of the countries answering the 1969–71 literacy questionnaire.

Only a few countries have, as yet, opted exclusively for a selective approach to literacy strictly linked to development priorities. Many may never completely abandon the massive, undifferentiated approach as a means of stemming illiteracy, while others may settle for an all-inclusive programme that incorporates some of the techniques of a functional approach. In some cases enthusiastic endorsement of new concepts is not being matched by the rigorous change in old habits that should logically result from this endorsement. But it seems clear that on the level of national policy, there is now a great surge of interest in the role adult literacy education can play in national development.

ORGANIZING FOR LITERACY

The swing to a functional approach in many countries has made it necessary to seek new organizational patterns for directing and implementing literacy activities. Functional literacy naturally involves not only the ministry of education (the traditional seat of nationally sponsored adult literacy activities) but also organisms concerned with economic and social development: for example, ministries of agriculture, health, community development, political education, labour, as well as specialized institutes and institutions and private agencies. There is a need for structures through which these various bodies can co-ordinate their efforts.

Strong centralized direction (or, at the least, co-ordination) of adult literacy activities should make possible certain economies—for example, in training of teachers, production of teaching and follow-up materials, evaluation of programmes, collection of statistics. On the other hand, adult literacy has often been most successful when left largely to the creativity and hard work and resourcefulness of groups operating at the local level. Further, rural or socially isolated people—those most afflicted with illiteracy—generally react more enthusiastically to locally organized efforts that are sensitive to familiar conditions and customs than to programmes imposed from far away.

Over the past few years a more or less 'classical' pattern of organization for adult literacy, which balances centralization with a certain degree of local autonomy, has developed; it has the following elements: (a) formation, within the ministry of education, of a department of adult education (or, sometimes, a national literacy centre) with responsibility for literacy activities; (b) setting up of a professional field organization consisting of adult education or adult literacy directors or supervisors at provincial, departmental, regional and local levels; (c) creation of a national executive or advisory or co-ordinating committee for

literacy which draws together representatives of various public and private organizations involved in or concerned with adult literacy education; (d) creation of similar committees at provincial, departmental, municipal and village levels.

There are, of course, large variations in the way this pattern is followed. In a few countries responsibility for literacy rests not with the ministry of education but with another ministry (for example, community or rural development); in some, although the main programme is directed by the ministry of education, other ministries—armed forces (for recruits), the interior (for police), justice (for prison inmates)—run literacy programmes of their own. The extent of the field organization depends on the seriousness with which the problem of illiteracy is viewed, the government's means and, a key factor, the availability of trained professional personnel. The field organization's authority and autonomy are greater in some countries than in others. Sometimes the national and sub-national executive/advisory/co-ordinating committees are very active; sometimes they exist in name only.

In general, Member States reporting the most radical changes in organizational structures during the period under review are countries in which illiteracy presents a serious problem and where previous campaigns have had disappointing results; Member States reporting illiteracy among small segments of the population only have tended to continue with the same organizational structures used in previous years. The few short case studies which follow may give an idea of the variety of ways in which responsibility for adult literacy is being allocated.

Brazil. In 1969–70 the Centro Nacional de Recursos Humanos (National Centre of Human Resources) made some studies of literacy efforts in Brazil. It found a variety of programmes being carried out in isolation, some on a regional level, some strictly local, some with government financing, others privately financed. Each programme had its own policies, methods, techniques and teaching materials. Since the results of this unco-ordinated effort over the previous years had not matched expectations or needs, a change seemed in order.

In 1970 a foundation established by the governement under the Ministry of Education and Culture, the Movimento Braziliero de Alfabetização (Brazilian Literacy Movement, or MOBRAL), began a literacy campaign with some fresh approaches. Execution of literacy programmes sponsored by MOBRAL is decentralized to the municipal level, while MOBRAL headquarters is responsible for: planning, control and evaluation; supplemental financing; and production of technical, information and teaching material. In mid-1971 MOBRAL was supervising 30,530 literacy teachers serving 763,235 adult learners. At the same time, many other private groups (both lay and religious) continue to provide literacy education in Brazil, and one of MOBRAL's responsibilities is to promote co-ordination between their efforts, as well as those of international and multinational organizations, and its own.

Burma. The national literacy campaign, which has now moved into an expansion phase after a period of planning and testing, is strongly centralized under the supervision of the Central Literacy Organizing and Co-ordinating

Committee, sponsored by the Ministry of Education. At the local level, township supervising and co-ordinating committees group representatives of various ministries and organizations concerned with adult literacy. However, all policy questions are decided within the Ministry of Education at the national level, and literacy work is directed from this level.

Chile. At present Chile is putting special emphasis on widespread participation, at all levels, of organizations representing potential adult learners (labour unions, co-operatives, maternal centres, rural federations, etc.) in developing adult education policies and executing programmes. The country has recently changed from a centralized direction of adult literacy to a system which is expected to promote decentralization, diversification and popular participation. Responsibility for adult literacy still lies with the Ministry of Public Education, but the ministry co-ordinates its efforts with other public and private institutions (labour and student organizations, institutes of agrarian reform and development, vocational training institutes). Executive co-ordinating commissions have been formed at the national, provincial, departmental and local levels; their role is to 'regionalize' adult literacy activities and to this end they have been granted considerable autonomy in planning, executing and supervising specialized programmes.

Ecuador. The Department of Adult Education of the Ministry of Education plans, co-ordinates and supervises the ministry's literacy activities. It is also required by governmental decree to provide technical direction to a variety of other public and private institutions offering literacy instruction. The Department of Adult Education gives financial as well as technical aid to some private institutes which carry out specialized adult literacy programmes: the Summer Institute of Linguistics of the University of Oklahoma (United States); the Salesian mission; and the Catholic Church, which produces and broadcasts literacy instruction by radio and organizes classes of radio listeners.

Mali. Literacy activities, including the pilot project of the Experimental World Literacy Programme, are directed and co-ordinated by a national literacy centre under the supervision of the Ministry of National Education. The centre is assisted by a national committee, which has counterparts at the regional and local levels, composed of representatives of various ministries concerned with economic and social development. Mali is now completely committed to work-oriented adult literacy, with classes organized at places of work, especially in the State-run agricultural and industrial enterprises, and there is close co-ordination between the national literacy centre and these enterprises as well as persons responsible for the country's economic and social development. Regional directorates exist in seven areas of intensified development. These areas are further broken down into functional literacy zones containing fifty adult literacy centres. The head of the functional literacy zone supervises activities in his zone by visiting each centre at least once a month, collecting records kept by the centres and preparing a monthly report for the regional director, who in turn prepares a trimestrial report for the national centre. The literacy programme is at present still centrally guided, attempts at increasing decentralization having been re-

tarded by a lack of local resources. In 1967 the total paid professional staff (national and regional) for adult literacy numbered 23; by July 1971 the functional literacy service counted 120 paid employees.

Zambia. Responsibility for both the national programme and the work-oriented pilot literacy project lies with the Department of Community Development of the Ministry of Rural Development. A Chief Literacy Officer and his staff reporting to the Commissioner for Community Development handle literacy matters at the national level. By 1972 it is hoped each of the country's thirty-two districts will have a district literacy officer, to whom will report numerous local literacy officers at village level. There is no national literacy committee, but area and village literacy committees are responsible for promoting, organizing, and supervising literacy work at those levels. The Experimental World Literacy Programme's pilot project is co-operating with the Department of Agriculture, the Department of Health, the Ministry of National Guidance, the Food and Nutrition Commission and the School of Education of the University of Zambia.

5 New approaches to selecting and training literacy personnel

Many of the countries where illiteracy is most prevalent lack trained cadres to assume teaching and administrative posts and provide back-up services in literacy programmes. The task of finding and training adequate new literacy personnel, as well as retraining people to adopt new approaches, has posed major challenges in the period under review.

The Experimental World Literacy Programme pilot projects have made a particularly rich contribution to the theory and practice of selecting and training literacy personnel, and have thus considerably influenced the development of new strategies to meet these challenges. Some of the strategies may have application for personnel training and retraining in other branches of education.

RECRUITING AND TRAINING TEACHERS

Traditionally, it has been thought that anyone who could read and write, including a schoolchild, could impart literacy skills to an adult, though the most appropriate person for this task was the primary-school teacher because he or she has been trained to teach these skills to children or at least has experience in doing so.

A view of literacy education as involving much more than acquiring literacy skills, as well as a greater understanding of the psychology and learning capacity of the adult and of how these differ from the child's, are now producing new ideas about who should teach literacy to adults, the role this person plays in the learning process and how he or she should be trained.

The following principles about literacy teachers are becoming generally accepted:

Social, economic and psychological distances between teacher and adult learner can easily hamper the learning process. Not all of these can be eliminated through training. For this reason, it is increasingly felt that the ideal teacher of illiterates is probably someone from the same social-economic-professional-cultural *milieu* as the learners, someone who understands their problems and with whom they can identify.

To teach illiterate or semi-literate adults successfully requires special training; this is true even for qualified school-teachers.

In addition to pre-service training, teachers of adults also need in-service help: refresher courses, supervision by persons who can provide constructive criti-

cism and other support in various forms (e.g. carefully designed guides, periodic bulletins).

The school-teacher and other professionals

Replies to the 1969–71 literacy questionnaire indicate that the school-teacher, usually at primary-school level, remains the mainstay of most adult literacy programmes; in defence of this practice it is often pointed out that the school-teacher is already a respected member of the community, that he has been trained in teaching methods, and that he has access to teaching facilities (a schoolroom, blackboard, etc.). On the negative side, it is indicated that he can only teach after school hours or during vacations, that for him adult learners are a secondary responsibility, and that he is used to teaching children and may find it difficult to treat adult learners as adults.

Most of those Member States which replied that school-teachers were responsible for adult literacy instruction indicated that these teachers receive some special training in how to teach adults. Pre-teaching training ranges from two or three days to one month. Also mentioned are refresher courses and in-service training.

A promising idea with wide implications for future adult literacy programmes that rely mainly on school-teachers is the introduction into the curricula of teacher-training colleges of courses on such relevant subjects as adult psychology and the teaching of functional literacy to adults, as well as practice in adult literacy teaching. Tanzania is one country to take this step: in 1970 the Institute of Adult Education in Tanzania and the Experimental World Literacy Programme's pilot project there collaborated in arranging orientation seminars for tutors from all the Tanzanian teacher-training colleges; students preparing to become primary-school teachers are now also receiving instruction in the theory of functional literacy and training in teaching functional literacy to adults. Another example comes from Guatemala, where students training to become primary-school teachers must make six adults literate before they can receive a teaching degree.

Some countries report that primary-school teachers are paid a bonus for any adult literacy classes they teach; in others, adult literacy teaching is considered a voluntary contribution; in still others it is a regular part of the teacher's responsibility.

Some literacy programmes combining vocational, agricultural or other instruction with acquisition of literacy skills have used professionals from ministries other than that of education (for example, agricultural extension or public health personnel) to teach literacy as well as their own speciality. As a report on the pilot project in Iran puts it, the big question is whether it is more expedient to train technicians in education or to provide technological training for educators. Technicians serving as literacy teachers need careful training in their new work. On the other hand, they are more used to working with adults than most primary-school teachers and so may require less information on adult psychology. In Mali the work-oriented literacy pilot project collaborates closely with a training programme for agricultural specialists executed by ILO with UNDP financing.

The programme provides theoretical and practical training in functional literacy; a special effort is made to enlist trainees from villages which lack a qualified literacy teacher so that they can serve these villages as both agricultural and literacy animators.

An alternative to using technicians alone is the team approach, with a specially trained teacher imparting literacy skills based on the vocational content of the literacy programme while an extension worker concentrates on the demonstration and practice of work-connected techniques. Such teams are being used in several of the pilot projects of the experimental programme.

Non-professionals

Many countries report the use in national literacy programmes of non-professionals—people who are neither professional teachers nor specialists in any other component of adult literacy programmes. Such teachers are usually called 'volunteers'; sometimes they are paid, but more often they are not (or they are paid according to their performance: in the Iranian national literacy campaign the teacher's salary depends on how many of his students pass a literacy examination). Privatly organized literacy efforts rely greatly on the voluntary services of non-professionals; for example, of 5,294 teachers of literacy classes for migrant workers in France covered by a recent report, about one-quarter were professional teachers, slightly over one-half of whom were paid, while the remaining 3,961 were non-professionals, of whom only 217 were paid.[1]

Certain groups have made very special contributions to voluntary literacy teaching.

In some countries members of the armed forces are deployed to teach literacy: in Iran, for example, soldiers who have received four months' instruction in teaching methods are sent to remote villages as literacy teachers, while in Israel girl soldiers with training as teachers spend thirty to forty hours a week teaching anyone who wants to become literate, at hours suited to the learners' schedules.

Students often serve as volunteer teachers. Zambia reports that almost every secondary school and teacher-training college in the country has a literacy club. In addition to organizing literacy classes, raising money to buy books and other materials, and helping to construct shelters or classrooms, club members also teach. In 1971, 103 such clubs, with a total membership of 4,750, were operating in Zambia. Students, many of whom have led relatively sheltered lives, have much to learn from working in literacy campaigns. In Cuba many of the young men and women who took part as very young students in the 1961 mass literacy campaign are now working in educational institutions; their contact with rural illiterates and their problems during the literacy campaign was a decisive factor in their choice of a career.[2]

Youth service organizations also provide literacy teachers. In Madagascar, young men joining the Malagasy Civic Service can opt for teaching literacy as part of the national development effort. Those who do so receive four months

1. *Alphabétisation et Promotion des Migrants Étrangers en France*, op. cit., p. 40.
2. See: Arthur Gillette, *Youth and Literacy*, Paris, Unesco, 1972.

of training in literacy and agricultural extension instruction and then teach classes for ten months. Many continue teaching in the national literacy programme after leaving the Civic Service. In the United States some of the young people joining the government's Volunteers in Service to America (VISTA) programme teach adult literacy classes. In 1970 youths serving in one of the camps of the Tanzanian National Service set about making everyone within a five-mile radius of the camp literate by the end of 1971. They opened twenty-nine centres in the area with an average of five youth service members, trained by staff from the Tanzanian Institute of Adult Education, teaching in each. The literacy programme included instruction in hygiene, agriculture, nutrition and political education; a report on the programme in mid-1971 states that changes such as increased agricultural production, better health and more active political participation were already apparent in the area.

Women in many countries serve as volunteer teachers, often in programmes organized and run by local affiliates of international women's organizations; these latter often help with teacher training by sponsoring national or regional training seminars. ACWW, for example, reports that 'all ACWW member societies rely heavily on trained volunteer help as resources do not permit otherwise'.

The use of non-professional teachers raises several questions. One is selection. While some literacy programmes accept all volunteers as teachers, others impose a minimum standard of competence and knowledge. This is determined by the number of years of schooling or through testing. The training of non-professionals poses another problem. Since these people have no teaching or extension-work experience, they need more preparation and supervision than the professional teachers discussed above. Most countries and organizations responding to the questionnaire indicate that such training is provided either before or during teaching. It varies in duration from a few hours to several weeks.

Professional literacy teachers

Only very few countries have so far established training programmes for career adult literacy teachers; specialized training for adult literacy work is usually reserved for supervisors and organizers of literacy programmes. (There are exceptions: for example, Spain, which reports using 2,250 full-time adult literacy teachers, and Israel, where teacher-training colleges provide training in adult literacy and some graduates work full-time in literacy programmes.) The fact that illiteracy is a long-term problem and that many amateurish approaches to literacy education have had little success suggests that the training of professional adult literacy teachers is a good investment. In fact, several countries report that they look forward to creating a permanent corps of literacy teachers. In Ecuador, for example, a few full-time professional literacy teachers are now at work and the Department of Education hopes eventually to use mainly teachers who devote all their energies to adult education.

Teachers from the milieu

By teachers from the *milieu* is meant people who share as closely as possible the social, economic and cultural background of literacy learners. The ideal teacher from the *milieu* is a successful former student in the same literacy programme. Of course, some of the teachers considered above as non-professionals belong in this category, but most, no matter how great their devotion, do not. The study of literacy courses for migrant workers in France, for example, shows that only 2.7 per cent of the 5,294 teachers were workers, and only a handful of these were migrants or immigrants. Citing the insufficient participation of workers as teachers in worker-education programmes, the World Federation of Trade Unions points out in its response to the 1969–71 questionnaire that one way in which trade unions can support literacy programmes is by training teachers from the socio-professional *milieu* of the participants.

The psychological contribution that a teacher from the *milieu* can make grows in relation to the extent to which literacy learners feel ill at ease in literacy classes, because of their cultural background, social status, age, or sex. To give an example, foreign workers in a European country benefit from being taught by a worker from the same region who has acquired enough literacy to qualify him as a teacher, since he has encountered and overcome the same linguistic and social problems they are meeting. In some societies women can only be taught by other women. Often it is where women teachers are most needed to reach women that competent volunteers or trained professionals are in shortest supply. The pilot project in Iran has solved this problem in the agricultural subpilot area of Dezful by bringing married couples, both members of which are teachers, to the area. In the morning husband and wife teach primary school; in the evening the husband teaches boys and men, and the wife girls and women, in work-oriented literacy classes. Although these teachers are not themselves villagers, they are, according to a report on the project, 'in constant contact with the villagers, sharing their lives and acting as leaders in agricultural activities, hygiene, child care or nutrition'.[1]

To make functional contribution to literacy education, the teacher from the *milieu* must share the learner's work experiences and problems while possessing a deeper understanding of these problems and a grasp of the tools needed to attack them. In a rural environment (as, for example, that of the rural programmes in the Experimental World Literacy Programme's pilot projects in Mali and Tanzania) literate farmers who have been taught the essential principles of literacy teaching are, with supervision and the help of carefully conceived teaching materials, now teaching their neighbours. The Chief Technical Adviser of the Mali project reports that more than 100 former participants in project classes are teaching either other adults or their own children; he cites this as an example of how the project's approach to literacy education has awakened a sense of civic and family responsibility in learners. In a factory situation the literate foreman or, better still, a co-worker who is a step ahead

1. 'The Work-Oriented Adult Literacy Pilot Project in Iran', *Bulletin of the Unesco Regional Office for Education in Asia*, Vol. V, No. 2, March 1971.

of the learners in technical understanding and literacy can make an excellent teacher from the *milieu*.[1]

Aids for teachers

Pre-service or in-service training is not the only means of preparing teachers of adult literates. In many literacy programmes—those using non-professional teachers and incorporating vocational or other instruction with literacy, for example—the teacher is almost as much a learner as the student. Often the teacher has a particularly complicated job: in the work-oriented literacy pilot projects teachers are asked not only to teach literacy skills, to impart important work-oriented knowledge and to foster changes in attitudes and outlook, but also—because these are experimental projects subject to careful control—to fill in forms and keep detailed records which are used for project evaluation.

Reports on the recent operational seminars described below point out that when designing teaching materials for literacy programmes using non-professional teachers a major factor to keep in mind is the level of knowledge and skill, as well as the attitudes, of the teachers themselves. In the Experimental World Literacy Programme's pilot projects, printed guides or instruction sheets help teachers get the most out of teaching materials. In Tanzania, for example, a teacher's guide for each of the six literacy programmes outlines and explains every lesson step by step; it also reminds the teacher how to comport himself with adult learners, some of whom are older than he. In addition, instruction sheets guide him in keeping records of classroom attendance and progress.

Many of the pilot projects of the experimental programme, as well as some national literacy programmes, provide periodic bulletins or newsletters for teachers. These serve to keep up morale, provide suggestions on teaching techniques, and answer teachers' questions.

TRAINING OTHER LITERACY PERSONNEL

Using literacy teachers from the *milieu* succeeds best in a literacy programme that is carefully designed, supplies excellent teaching materials, and provides teacher training and supervision of a high quality. Such conditions presume the collaboration of a highly trained group of specialists: district or regional officers for literacy education, local supervisors, curriculum-design and teacher-training experts, evaluators. Where are these people trained?

The traditional centres for such training are colleges and universities in the developed countries. In some developing countries, universities, colleges and institutes of higher education train personnel for adult literacy programmes through seminars and courses.

1. For a comparison of part-time and full-time teachers and teachers from the *milieu*, see: F. Mourad, 'Literacy Teachers in the Algerian Functional Literacy Project', *Literacy Discussion*, Vol. II, No. 2, spring 1971, p. 149–57. On the basis of the Algerian experience Mr Mourad proposes that a literacy teacher from the *milieu* should have at least a primary-school certificate and about five years of working experience, plus a minimum of one month of basic training supplemented by refresher sessions.

The regional training centres for literacy described in Chapter 3 have played a vital role since their inception by making their facilities available to trainees and by organizing and contributing to courses and seminars held on the national and sub-regional levels. The number of courses on literacy has grown steadily; for example, Columbia reports that in 1970 alone some forty-five courses and ninety lectures and round-table discussions on functional education for adults were organized on the national level.

In the pilot projects of the Experimental World Literacy Programme national and international experts work closely together in designing and running the project; in the process the international experts impart their previously acquired technical knowledge and skills to their colleagues while the latter contribute an invaluable knowledge of local conditions, customs, language and so on. Sometimes the learning-by-doing training is supplemented by more organized, formal instruction—in courses, through participation in seminars at home or abroad, or through study in foreign educational institutions. Another pattern now being used is inter-project exchange; national experts from one project go to work in and observe another, where they acquire new techniques and study similarities and differences in approach. Some believe that a few weeks of this kind of practical experience is much more useful than a longer but more theoretical course of study at an educational institution abroad.

A new approach to training which has developed rapidly during the period under review deserves more extended description here: the operational seminar. The operational seminar, which was evolved to satisfy training needs in the framework of the Experimental World Literacy Programme, brings together specialists in various disciplines and administrators concerned with the education of illiterate or semi-literate adults for a period of concentrated training through field-work. The guiding principle is that participants learn not from listening to or watching experts but that all participants, experts included, learn from their own experience in working out a series of problems.

During the seminar the participants, sometimes divided into several interdisciplinary groups, go through the steps of designing, setting up and evaluating a functional literacy programme. Throughout they work in close co-operation with potential learners and others (teachers, supervisors) from the *milieu*. These steps are described in the following paragraphs.

The first step is a study of the environment in which the target population works and lives and of the characteristics (e.g. habits, attitudes, beliefs) of this population. All available sources of information are used such as published statistics on population and production, and new information is gathered through surveys, interviews, testing and observation.

The second step concerns identification, with future learners and others from the *milieu,* of those problems hindering social and economic development which can be attacked through an educational programme. Thus, in the seminar which was held in Tunis in May-June 1970, groups studying the target population of three agricultural co-operatives found that, although the co-operative members had a high level of technical competence, they lacked scientific understanding of the operations they could carry out. Similarly, although they were enthusiastic about co-operative organization, they had no deep

understanding of how a co-operative functions and what benefits it can bring; less than half participated in co-operative management. On the basis of these findings the seminar participants determined two major objectives for a functional literacy programme: (a) to impart enough scientific knowledge to allow members to understand their work and modify techniques, if required; (b) to impart an understanding of the aims and methods of the co-operative which would lead to increased participation in its administration.

The next step is the design of the educational programme or programmes. This involves, again in close collaboration with the local population, deciding what is to be taught (content), how is should be taught (for example, in what sequence), and what materials (for both teacher and learner) will be used. The operative principle is that of 'non-directed' or 'semi-directed' learning—discovery by the participants themselves of what problems need attention and what tools are required to attack these problems. The elements of literacy instruction—vocabulary for reading and writing, problems for figuring—are drawn from the material 'discovered' by the learners with the guidance of the monitor or teacher.

The fourth step deals with the selection and training of teacher(s). Participants establish criteria for the teacher and devise a training programme based on the content of the learning programme and the special techniques (for example, use of visual aids, discussion leading, practical demonstrations) it requires. As the report on the Tunis seminar points out, 'non-directed' learning requires great skill from the teacher: 'As far as "animation" is concerned, it is carried out with non-directional techniques. . . . But this non-directionalism must in fact be wisely implemented by the monitor [*animateur*] who, while remaining anonymous within the group, must know how to lead his audience towards a pre-established objective. . . .' The report also points out that: 'Thanks to the monitor, the participants must receive a true *mental training* which permits them to be conscious of the problem which they must deal with, to find out its causes and to adopt collective decisions regarding the action to be undertaken.'[1]

The final step is implementation and evaluation. Teaching begins, and seminar participants note any short-comings of the work carried out under previous steps. They also measure various indicators of the programme's success, such as acquisition of literacy skills, increase in technical knowledge, change in practices, change in attitudes. To do so they devise a series of instruments, using tests, interviews, observation, group discussion.

The operational seminar can attain several ends: (a) setting up a workable functional literacy programme for a given population, with teaching materials produced, classes formed, teachers trained and evaluation instruments designed; (b) training of seminar participants so that they can follow similar procedures in starting functional literacy programmes in other settings; (c) where several groups are working simultaneously with similar target populations, experimentation with different methods and material throughout the five steps listed above; (d) production by participants of a report on the seminar which serves as a

1. International Seminar on Functional Literacy, Tunis, 18 May to 5 June 1970, *Functional Literacy: A Training Method for Development. Final Report*, p. 57.

guide for conducting other such seminars and for setting up functional literacy programmes.

TRAINING WITH AND FOR MASS MEDIA

Both radio and television are being used to train literacy teachers and other literacy personnel in several countries.[1] These media can serve several purposes: provide general training, provide supplementary in-service training (or *télé-guidage*, as it is called in Mali), re-orient personnel to new methods, and help ease the sense of isolation felt by teachers and even supervisors in rural areas. The training is economical since trainees need not be brought to a central location and lodged, and one training team can serve an entire programme. Also, it can reach people who are not free to attend centralized training sessions or seminars—for example, school-teachers or women who cannot leave their families for extended periods.

Gabon broadcasts a weekly programme, *Mieux Faire la Classe* (Towards better class teaching), for literacy teachers. The Ivory Coast uses a monthly television programme and half-hour weekly radio transmissions for teacher training. In Mali the Experimental World Literacy Programme's pilot project uses radio for follow-up training and support of teachers and other personnel working in the agricultural sector. A weekly programme broadcasts advice on teaching techniques, the scheduling of lessons and so on and also answers questions received by mail from listeners. The experimental programme's pilot project in Iran uses radio for in-service training of teachers at Isfahan, and the national literacy programme has used closed-circuit television for teacher training.

In Zambia a re-orientation programme in English, *For Literacy Officers,* was broadcast between September 1969 and April 1970. It was followed by a programme for community development as well as literacy officers, which ran until March 1971, and was, in its turn, followed by a new series introducing functional literacy to the same audience. The broadcasts present discussions between participants from the Department of Community Development (which is responsible for the national literacy programme), the University of Zambia, the Ministry of Education and members of the general public interested in education and development. Programmes are recorded in various parts of the country; in addition to discussion, they include news about events in the field and items on literacy from Unesco publications and other sources. Questions raised by listeners are answered on the air or in writing. Eventually, the programme may be incorporated into a correspondance course for literacy and community development officers, which would help overcome the shortage of training centres.[2]

Literacy programmes using radio and television for teaching literacy learners require special training for teachers, organizers and curriculum specialists. To

1. See: *Radio and Television in Literacy*, Paris, Unesco, 1971 (Reports and Papers on Mass Communication, 62).
2. A. Natesh, 'Radio for Literacy', *Z Magazine*, June 1971, p. 4–7 (a publication of Zambia Information Services, Lusaka).

give an obvious example, in some adult literacy programmes using radio or television broadcasts, teachers must learn how to adjust, service and make emergency repairs in receiving equipment.

Where courses are followed by organized groups, the 'animator' or 'monitor' or 'supervisor', whatever he is called, is crucial to the programme's success. According to the survey on the use of radio and television in literacy education cited above: 'This new kind of educational auxiliary represents one of the most interesting and significant aspects of broadcast-based literacy instruction. With so many grave and acute shortages of qualified teaching personnel in developing countries, his importance economically—and indeed socially—and the need to study and care for his needs, can scarcely be exaggerated'.[1]

A variety of schemes are used to train teachers in charge at the receiving end of radio and television literacy broadcasts. The well-known literacy programme of Radio Sutatenza in Colombia is supported by three rural training institutes where young men and women receive special preparation for field-work. In Jamaica, where both radio and television are used, class-teachers are group leaders, field-workers, housewives, school-teachers and students who volunteer their services; they receive special training in short seminars and residential training courses. In Yugoslavia teachers in the television literacy campaign are persons already trained in teaching adults; if they wish they can attend fortnightly courses held each summer for up-to-date information in the use of television in teaching. Volunteer monitors in literacy classes using television in Egypt were themselves given practical training through television. Tunisian television literacy classes are directed by professional teachers who attend special training and refresher courses in preparation for this specialized kind of teaching.

In speaking of radio and television as a tool in literacy teaching the report[2] says: 'Quality obviously hinges on the adequacy of the training of those responsible for producing and using programmes. The replies [to the survey] suggested that training is one of the less-satisfactory aspects of the use of broadcasting in literacy work.' Recalling the 'multiplier' effect of these media, the report adds, 'investment in first-class training, especially of creative and technical personnel, can, therefore, yield benefits quite out of proportion to the costs involved'.

1. *Radio and Television in Literacy*, op. cit., p. 27.
2. ibid., p. 35.

6 Innovations in programme design

The basic methodological principle, implemented in the Experimental World Literacy Programme, of integrating the teaching of literacy with that of other knowledge and skills inspired a great deal of innovation in programme design during the period 1969–71. In some countries a variety of programmes designed for specific groups are replacing an older multipurpose teaching programme; in others, programmes already in use are being modified to incorporate new ideas.

OBJECTIVES

There is an ever-closer correlation between over-all national policies and policies governing adult literacy, and between the latter and the objectives of individual adult literacy programmes.[1] The need to state clearly objectives for adult literacy programmes is a fairly recent phenomenon arising from growing expectations of what adult literacy may accomplish and the integration of this form of education into development plans.

In some countries the sole objective of all adult literacy programmes is to teach literacy skills. In others, literacy education as such is considered a necessary preparation for adult vocational training. In still other countries, objectives are much more ambitious—for example, contributing towards increasing worker productivity in a given agricultural sector or industry. One programme may have more than one objective, and there may be several programmes with differing objectives within one country.

More and more, the setting of objectives for adult literacy programmes is preceded by serious study of such factors as national development needs, the dimensions of adult illiteracy among various groups, the areas in which adult literacy instruction might contribute to development, the financial and human resources available for programmes, the social and psychological climate in which such programmes would take place, and so on.

Responses of Member States to the 1969–71 questionnaire indicate that in many countries where policy statements imply development-related objectives,

1. In this text 'policy' is used to mean an over-all intention (for example, adult literacy should be provided selectively, to groups whose increase in capability will most benefit national development) while 'objective' refers to the intended outcome of a specific programme (for example, to raise productivity of cotton growers, to improve workers' security from accidents in a canning plant).

the period under review has been one of transition from formulating policies and incorporating adult literacy into long-range plans to establishing insitutions, training personnel, and other actions that will eventually make it possible to determine specific objectives and translate them into true functional literacy programmes. During this transitional period, literacy efforts have continued with the generalized objective of giving illiterates basic communication and numerical skills, although increasingly the literacy class provides an opportunity for imparting other useful information—for example, on hygiene, nutrition, civic responsibility.

In some countries, however, individual teaching programmes have been designed to meet specific objectives. The pilot projects of the Experimental World Literacy Programme, for example, have developed a variety of teaching programmes, each with one or more distinctive objectives. The Iranian project is the most diversified, with eighteen different teaching programmes, while Mali has thirteen plus two in preparation, and in Tanzania seven are now in use and others are being prepared in co-operation with teachers' colleges and the Institute of Adult Education.

CONTENT

Determining the content of an adult literacy programme means translating objectives into a series of specific, realizable learning goals.

Some of the most advanced work in determining teaching content has been done for the pilot projects designed to contribute to agricultural development or to fill specific training deficiencies in industry.[1] Determining content in such projects involves several steps.

If the objective is to improve production in a given factory, for example, the following five steps would be necessary:

1. To identify problems holding back production. This is accomplished through a study of the environment using various investigation techniques.
2. To single out those problems which an educational programme for illiterate workers might attack (clearly functional literacy cannot replace obsolete machinery).
3. To analyse the work now performed by these illiterates.
4. To determine how much the potential learner already knows. This step is crucial but is often ignored on the assumption that the illiterate knows nothing or, conversely, that if he can perform certain tasks he understands the principles behind them.
5. To determine what kind of learning programme for the illiterate worker could modify his contribution so as to help solve the problem identified.

While objectives are usually determined at the level of educational or developmental authorities or of management, decisions on content reflect the views, attitudes and aspirations of everyone concerned with the learning programme. The worker, the factory supervisor, factory management, experts in professional

1. Although the discussion here describes functional literacy programmes, in traditional literacy programmes as well it is increasingly considered vital to determine teaching content in the light of learners' capability and aspirations and the teaching and other resources available.

training, and pedagogical specialists may each have different ideas of what problems are holding back production, which skills and knowledge are crucial to improving worker productivity, and how these might be provided by a functional literacy programme. To reconcile these different outlooks, the experimental programme's pilot projects in Guinea and Mali establish an interdisciplinary team for each enterprise touched by the project. The job of these teams is to identify problems and discuss solutions; they include technicians and workers from the enterprise as well as experts in evaluation, professional training, and teaching-materials production.

Many Member States report that literacy programmes are related to the functional needs of learners, but it is not clear how these needs are determined at the actual level of day-to-day activity or are translated into specific learning goals. The rigorous approach to determining the content of specialized functional literacy programmes, as well as the participation of potential learners in decisions about content, are relatively new, and the techniques used are still being elaborated. At the same time, the operational training seminars discussed in Chapter 5 are already simultaneously refining these techniques and training professionals in their application, and this should become more widespread in the years to come.

METHODOLOGY

This is an all-embracing term meaning in general how content is imparted. That it is highly ambiguous is indicated by the replies to a question in the 1969–71 questionnaire on 'recommended or widely used methodology'.

On one level, methodology refers to the manner in which literacy skills, especially reading, are taught. This has long been the subject of debate among those concerned with literacy education. A main issue in teaching reading is whether to use a synthetic (or phonic) approach, in which the alphabet or combinations of letters are taught first with the sounds they represent, or a global approach, in which the learner first encounters a meaningful unit (a word or sentence) and only later breaks down this unit into its components. The answer depends a great deal on the nature of the written language (for example, to what extent it follows phonic rules). It should also depend on the perceptions, learning capacity and interest span of the adult learner, about which not enough is known, most research on reading instruction having involved schoolchildren only. Some other questions open to debate at this level of methodological discussion are at what point writing should be introduced, whether a print or script form should be taught first, whether traditional or 'new' methods of mathematics are more suited to adults, etc.

Some Member States, taking the question on methodology as meaning how literacy skills, especially reading, are taught, indicate that an eclectic (mixed) method is used (Argentina, Guatemala, Liberia, Thailand) or that instructors are left free to adopt whatever approach seems most successful (Brazil, Hungary, Peru, the United States). Burma specifies that the phonic method has been adopted since 1969. Senegal distinguishes between instruction in French (semi-global method) and in national languages (synthetic method using syllables).

The Laubach method (essentially a synthetic method) is followed by certain programmes in Ethiopia, Mexico and Pakistan.

Still within the province of programmes teaching reading, writing and arithmetic skills only, methodology can also refer to the choice of ideas presented to the learner simultaneously with literacy instruction and the effect the actual process of acquiring literacy is expected to have on him. According to Paulo Freire, becoming literate implies a transformation of the learner from a passive being to an active, critical, creative one. Using familiar words charged with social and cultural meaning (accompanied by photographs or illustrations) and encouraging self-discovery and self-expression through speech and writing, the Freire approach (often called a psycho-social approach) not only teaches the components of written language but also makes the learner aware of his potential power as a social force. The actual teaching method is eclectic: the learner first sees an entire word which is then broken into components from which, the adult learns, he can make other words. Freire states that with this method adults learned to read and write Portuguese quite fluently in six to eight weeks.[1]

Freire's over-all method has distinct social-political objectives which are not universally accepted; the language component of his method rests on experience with Portuguese and Spanish, two phonically written languages. But the idea of choosing for teaching purposes a vocabulary, sentences or even mathematical exercises charged with meaning or, at the least, drawn from the adult learners' everyday world, is receiving increasing acceptance, and several Member States cite adoption of or experimentation with a psycho-social approach as a recent reform tending towards a more functional literacy programme.[2]

In functional literacy programmes the question of methodology becomes even more complex. The new element is the integration of theoretical and practical work which, although it involves use of literacy skills, is designed mainly to provide the learner with the skill, knowledge and understanding to solve vocational-technical or social problems. As an expert in methodology explains it: 'In this converging approach, the "aim", or the "problem", constitutes the unifying theme of the training, whose role . . . is to provide practical, scientific, socio-economic and arithmetical knowledge or information conducive to attainment of the aim or to a solution of the problem. . . . By the way of illustration, the technical operation of dressing the vine is mastered in the following sequence: learning the required hand movements, technico-scientific explanation of the problem (standards of work and output), application of arithmetic to the above, reading of texts with a bearring on the operation.'[3]

An integrated approach presents a paradox to methodologists: the adult illiterate can understand fairly technical information at the start of the course, but

1. Paulo Freire, op. cit.
2. In fact this approach is not functional in the same sense as a programme integrating literacy with other skills and knowledge to improve the learner's over-all grasp of useful tools; instead it is a cultural approach which happens to include one of the objectives of functional literacy programmes: preparing adults to meet the modern world critically and rationally, as important agents in development processes.
3. *Functional Literacy: A Method of Training for Development*, p. 10–11, Paris, Unesco, 6 November 1970 (Document prepared by the Unesco Secretariat for the International Advisory Committee for Out-of-School Education).

he many need literacy skills both to put to use the technical knowledge presented him and to store (through writing) and refer back to (through reading) relevant information.

Some functional literacy programmes provide literacy first, saving work-oriented or other information and skills for a second phase. The initial phase differs from traditional programmes in that literacy skills are provided more intensively and the words and exercises are drawn from daily life. This is called intensive literacy, or pre-literacy. An experiment in a textile industry carried out by the Experimental World Literacy Programme's pilot project in Iran showed that the illiterate worker could acquire a rudimentary grasp of reading and writing Persian in thirty-six hours, spread over six weeks; this was followed by the functional literacy programme which combined professional training and perfecting of literacy skills during two cycles each lasting six or seven months.

If the learner finds the first phase too theoretical, too unrelated to his everyday needs, he may lose interest and drop out. For this reason other functional literacy programmes combine vocational and literacy content from the very beginning; progress in literacy skills is slower, but interest in the programme may be higher. In the programme's pilot project in Tanzania, for example, the first year's work is divided between literacy education (with a primer using words from the work vocabulary and presenting broad concepts) and practical field demonstrations; by the second year of the two-year programme the learner can obtain information from reading which reinforces what he learned through demonstrations.

Still another approach is to begin with practical knowledge as a basis from which mastery of literacy skills will become inevitable. A theoretical framework for such a programme for a homogeneous group of workers already performing somewhat skilled jobs has been described by one expert; the guiding principle is that these workers already have some unexpressed and unorganized understanding of the concepts underlying their work: '. . . our first intervention should not consist in giving the illiterate workers words, numbers, notions, etc., but in allowing him to benefit consciously from his inherent mental patrimony. What we must try to do in the beginning is in effect to extract *maieutically* from his mind the concepts of his concrete working experience and the general criteria present in them. Then we must start with him a rational and scientific process of clarification and preciseness of these concepts and criteria, and afterwards we must assist him in transferring them into logical structures of language expressed by graphic symbols: drawings, simple pictorial formulae, numbers and words.

'By this process the worker is led to understand not only the enlightened links between the abstract concepts and the concrete facts which are involved in his daily actions, but also the intrinsic structure of a rational enunciation and the interrelations between its components: symbols, numbers, words, etc. Successively he would almost surely apply the same logical rules, when he starts to compose the words he has learned into written sentences. These sentences, little by little, will form the basis of a new, more precise technical language, the only one able to stimulate improved and more productive working performance.'[1]

1. C. Bonanni, 'Literacy for Industrial Workers. Notes on Methods and Techniques', *Literacy Discussion*, Vol. I, No. 1, winter 1970, p. 13–14.

An interesting example of a programme beginning with practical knowledge, this one for illiterate farmers, comes from Dahomey. In early 1971 a Swiss member of Volontaires Suisses pour le Développement, aided by eight monitors, taught illiterate co-operative farmers to weigh and market the cotton they grow before teaching them how to read or write figures. Consisting of twelve sessions of one and one-half hours each, and conducted in the local language, Bariba, the course used scales, a system of counting with bars in units of five, cubes symbolizing various weights, objects symbolizing units of money, a schedule showing the selling price of cotton, another showing the price of services and materials (e.g. fertilizers, seeds, insecticides) to be deducted from the selling price, and various other cheap and easily produced teaching materials. Immediately following the course, one particularly enthusiastic co-operative, where all members had attended classes, managed its own market on market day (the first time illiterates had done so in the area). Commercial transactions took no longer than when handled by literate outsiders, the results (supervised by the teaching team) were accurate, and the co-operative members were jubilant. Plans for this project call for courses in marketing other products; courses introducing figures, reading and writing based on functional literacy texts to be produced in Bariba; and eventual adaptation to the language and *milieu* of these people of agricultural training courses.[1]

INTENSITY OF LEARNING PROGRAMME

Answers to such questions as whether literacy should proceed, be integrated with, or follow other teaching content depend largely on the intensity of the learning programme. In some functional literacy projects reported by Member States, especially those within the framework of an enterprise or a socio-economic grouping such as a co-operative, the learner attends classes or demonstrations as often as five days a week, for two hours each day. Such intensity is rare, however; the usual literacy programme, even a functional one, involves attendance two or three times a week, and often only once a week.

On the other hand, full-time courses are reported in the United States for workers released temporarily from their jobs and for the unemployed, and in Sweden for gypsies and immigrant groups. In establishing full-time courses for workers, the total co-operation of employers is necessary to ensure re-employment at the end of the course; in agricultural communities such courses would have to be offered during the slack season. Intensive literacy courses require full-time teachers and permanent meeting-places, and these make them more costly than programmes relying on volunteer teachers. (In Sweden the local social welfare authority pays the living expenses of adults attending full-time courses.) On the other hand, the gains in learner motivation and decreased drop-out might make such programmes less expensive in the end than diffuse efforts.

1. Jean-Pierre Grossenbacher, *Alphabétisation Fonctionnelle. Rapport*, Parakou (Dahomey), 19 February 1971 (mimeo.).

LANGUAGE

It is now generally accepted that from the pedagogical standpoint, teaching literacy in the learner's native spoken language is indisputably preferable to any other solution; at the same time, other concerns (need for national unification, economic considerations, absence of reading material in the spoken language, the learner's own wishes) may make a second or even a new language more desirable as the teaching medium.

Replies from the 1969–71 questionnaire and other sources indicate that literacy teaching generally follows national language policies, and that these are very diverse. To give some examples, in Israel everyone is instructed to read and write Hebrew except for the Arab population, which receives instruction in Arabic. Kenya plans to replace English with Swahili as the national language by 1974. Adult literacy courses begin literacy instruction in one of the vernaculars while introducing Swahili as a second language; when learners can speak Swahili instruction changes to this language. In Mali agricultural programmes use Bambara, while industrial programmes use French. Mexico reports that the main teaching language is Spanish but small, monolingual groups are taught in their own dialects. The Niger reports that in rural areas literacy activities are conducted in five main national languages, but in urban areas literacy instruction is in French while other subjects are discussed in a national language. Peru reports a bilingual system of literacy education leading from vernaculars to Spanish. Senegal states her intention of providing literacy in national languages as soon as transcription of these is finished, while French will continue as the language of instruction in certain factories. In Tanzania all instruction is in Swahili, and the literacy programme is considered an important instrument for developing the national language. Zambia uses seven languages for instructional purposes. The People's Republic of the Congo notes a change in policy in recent years from complete reliance on French to a realization (not yet put into effect) that literacy teaching should take place in one of the two local languages now used for oral teaching.

Sometimes it is private organizations which take on the task of developing literacy programmes in vernaculars, to supplement a national programme in the national language. In the territory of Papua and New Guinea, for example, the Summer Institute of Linguistics is working in eighty-five language groups, and already carrying out literacy programmes in thirty-four of these. Literacy in the vernacular is considered a first step toward literacy in one of the national languages spoken in the territory.[1]

Literacy programmes for migrant workers in European countries often stress acquisition of the language of the host country as much or more than acquisition of literacy skills. The United Kingdom reports that 'most of the illiterate adults . . . are immigrant workers from overseas. Wherever the extent of such illiteracy indicates the need for remedial measures the Local Education Authority generally organizes classes for the teaching of English with such provision as appears necessary for the teaching of reading and writing.' According to a study

1. See: Roy E. Gwyther-Jones, 'Some Literacy Problems in the Territory of Papua and New Guinea', *Literacy Discussion*, Vol. II, No. 1, winter 1971, p. 7–16.

of literacy courses for migrant workers in France, of around 32,000 foreign participants in the spring of 1969, about 48 per cent were estimated to be completely illiterate, while the rest could read and write their native language. The study indicates that the main reason migrants attend these classes is to learn enough French to be able to understand others and make themselves understood.[1] Sweden reports that in 1970, 150,000 immigrants speaking thirty-five languages followed free Swedish language courses across the country. The language course begins by teaching the learner to write his own name and address using the Roman alphabet. How many participants were true illiterates is not stated. Illiteracy is mentioned as one reason for under-utilization of vocational training programmes for immigrants, but the fact that Swedish authorities have produced language manuals and corresponding small dictionaries in twelve languages as well as a newspaper for immigrants in five, shows that a good number of the foreigners must already be literate.

No Member State reports literacy courses for foreigners which begin by teaching literacy skills in the learner's native language as a bridge to mastering that of the host country (although some take into consideration the linguistic and cultural background of the learners in other ways). Nor do literacy programmes for foreigners seem to discriminate carefully between those who are completely illiterate and those who are literate in another language, although these two groups require quite different teaching approaches.

1. *Alphabétisation et Promotion des Migrants Étrangers en France*, op. cit.

7 New learning tools for literacy

The trend in learning tools for literacy learners (whether objects, like the primer; techniques, like group discussion; or media, like radio and television) is towards an increased emphasis on the learner as an active participant in literacy education through self-instruction and even creation of his own learning materials.

Learning tools can be roughly divided into two groups: those providing the learner with a block of material at the outset, which he will absorb gradually (the primer and supplements), and those presenting him with material in small progressive units so that he masters each step before seeing the next (sequential materials, programmed instruction, electronic teaching machines). A third category combines characteristics of the two: teaching by radio or television, in which broadcast lessons reach the learner unit by unit, but at a rate he cannot control (although he may use a textbook correlated to the broadcasts to which he can refer backwards or forwards).

THE PRIMER AND ITS SUPPLEMENTS

The traditional instrument for teaching adults literacy skills is the primer; judging from replies to the 1969–71 questionnaire it remains by far the most widely used. With the primer the adult learner may receive one or more items of practice material: workbooks, blank notebooks in which to practise writing and figuring, pencils, a small slate and so on.

Whereas a few years ago 'primer' often meant the book used to teach schoolchildren to read, most countries replying to the 1969–71 questionnaire indicate that primers now used in adult literacy classes are designed specifically for adults. (To give an example, Pakistan notes that the Girl Guides Association of Pakistan has made a valuable contribution to adult literacy by printing three work-oriented primers in Urdu to replace the Urdu school primer used until now.) Many countries report a single national adult literacy primer, but a sizeable number of these say they intend to produce primers for various groups (diversified according to vocation, rural or local habitation, sex, etc.) as soon as resources permit.

Writing any primer for adults has turned out to be too large a job for one person alone, but this is especially true of primers for functional literacy courses. These require expertise in many areas, including literacy teaching, language and linguistics, the vocational content being emphasized, illustrations relevant

for the target group of learners, layout acceptable for beginning learners (for example, proper type size for eyes untrained to discriminate between letters) and so on. In the Experimental World Literacy Programme pilot project in Tanzania, first- and second-year primers (and accompanying teachers' manuals) for six differentiated teaching programmes were written by a writers' workshop grouping as many as eight people depending on the subject-matter (a typical workshop might bring together three editors, a specialist in teacher training, an agricultural expert, an expert in co-operative village organization, a specialist in Swahili language usage, an expert in vocational training). The workshop collaborated closely with the artist who illustrated concepts presented in the primer and the graphics specialist responsible for its layout and design. Draft primers were tested with learners before being put into final production.

An interesting variation on the primer is the teaching discs used by the Iranian pilot project for the intensive pre-literacy phase described in Chapter 6. Two discs are enclosed in a cardboard rectangle pierced by four trapezoidal windows and five small circular openings on each side. By turning the discs the learner can bring into simultaneous view a picture of an object familar from his work environment, its written name, and the letters making up the name; he can also see the Roman, Iranian and Arabic signs for numerals up to 1,000. The turning discs present ninety-six basic words containing all forms of the thirty-eight letters of the Persian alphabet (which can take seventy-six different forms depending on their position within the word). The disc system allows concentration on one word and its elements at a time; the picture eliminates any risk of misunderstanding the word's meaning. As an instructional tool with no resemblance to a child's textbook, it also has a psychological advantage over the primer. Larger wooden teaching wheels based on a similar principle but without illustrations, one presenting letters of the alphabet and another phrases and short sentences, are used for classroom teaching in the Burmese national literacy campaign, where they supplement a primer and other materials.

To enrich primer lessons the literacy teacher can use a variety of traditional visual aids. The most universal, and perhaps the most practical, is the blackboard. Others include flash cards showing letters, syllables, words, whole phrases, or numerals; flannelgraphs with elements that adhere to make words or sentences or arithmetic exercises; flipcards; posters, maps, globes, and so on. These are useful to the extent that the teacher is trained to manipulate them efficiently. Some literacy programmes have devised portable units for teachers combining several aids: blackboard, plastic bands to hold flash cards, and flipcards, as well as storage space for class records and teachers' manuals.

Where resources permit and electricity is available, more technologically complex visual aids brighten individual classrooms: slide or filmstrip projectors, silent or sound movie projectors, tape recorders.[1] These can supplement the primer lessons in teaching literacy skills or introduce information on subjects of interest to adults—agriculture, hygiene, nutrition, civics. In literacy class sites in less-developed countries, battery-operated devices can overcome the frequent

1. See: Donnie Dutton and Don F. Seaman, 'Audio-Visual Aids in Adult Literacy Education', *Literacy Discussion*, Vol. II, No. 3, summer 1971, p. 27–42.

lack of electricity; battery-operated cassettes are being used with success in the pilot project in Ethiopia. Sometimes equipment too expensive to allot to individual classes is gathered into mobile units which serve many groups. Venezuela, for example, reports using eighty units equipped with film-projection apparatus, slides, posters, loud speakers, librairies, and even marionette theatres. They have been extremely valuable in awakening interest in literacy education—especially in isolated areas, in supplementing literacy instruction and in providing materials for new literates and school-leavers.

SEQUENTIAL MATERIALS

In some cases those designing literacy programmes find that the primer has some weaknesses. It can discourage the beginning learner by presenting him with a seemingly formidable mass of learning materials, and it is not always flexible enough for experimental programmes or programmes carefully matched to specific learning needs of small groups: writing a primer for, say, fifty workers in an enterprise is not usually feasible.

During the 1967–71 period there has been much experimentation in devising learning materials to overcome one or both of these weaknesses. While some of the pilot projects of the Experimental World Literacy Programme use diversified functional literacy primers, others are experimenting with teaching cycles composed of learning units each built around a specific technical-vocational learning problem. These are generally broken into sequences of about one week's duration (in programmes where attendance covers several hours a week), and materials are presented to learners sequence by sequence. The basic materials for a teaching unit usually consist of: (a) a poster illustrating the learning problem, which serves as a point of reference for discussion by the learners (sometimes the poster is replaced by illustrated sheets with which learners can build up their own book); (b) a 'technical card' for the animator or instructor which presents the ideas, attitudes and knowledge he should evoke from and transmit to the learners, as well as instructions and hints on how to do this; (c) various materials for teaching the literacy skills required for solution of the learning problem—these can resemble materials used with primers (for example, flash cards) but the vocabulary and exercises are drawn from the learning problem under discussion; (d) audio-visual aids such as other posters, slides, films. In addition to these, there may be an over-all guide for the instructor.

The Paulo Freire method also uses teaching materials designed around key problems and presented to the learner progressively. As described in *L'Éducation: Pratique de la Liberté,* these consist of pictures illustrating certain situations which serve as a basis for discussion, and an instruction card to help the animator in guiding this discussion. With the pictures are key words, chosen both for their significance to the subject and their literacy teaching value.

The family education programme in Thailand mentioned in Chapter 2 uses a system for presenting materials borrowing from an earlier model developed in Israel and which is a variation on those described above. Materials for each lesson consist of a card with a photograph illustrating the theme of the lesson on one side, and the literacy learning text on the other. As they are mastered,

cards are given to individual learners for insertion in a loose-leaf binder. Thus, the learner builds his own 'primer' which he keeps for future reference. In this programme it is proposed to retain some cards for teaching all participants in adult literacy, while others will be designed specifically for differentiated groups and inserted into the series where appropriate.[1]

The advantages of a sequential system have become apparent in experimental projects aimed at small groups and built around specific learning problems. Materials can be created for individual learning groups (for example, workers in each factory, producers of different crops). The teaching programme is flexible, as the materials can be produced just a few jumps ahead of actual teaching, thus incorporating experience with previous units (alternatively, materials for the whole programme can be designed ahead of time and distributed at a rate determined by learners' progress). Finally, the learner is introduced to the content he must cover gradually; as he masters each sequence he keeps a personal record of his progress (for example, filled-in notebooks, sheets he has learned to decipher, compositions, technical drawings he has done himself).

On the other hand, the development of sequential teaching materials requires the continuing co-operation of several specialists, including some from within the enterprise or *milieu* in which the literacy programme is operating. It also requires facilities (such as a well-staffed national literacy centre equipped with drawing and reproduction equipment) for the rapid production of specialized teaching tools. And it requires careful, continuous control and evaluation of classroom teaching.

Mali and Senegal are the only countries which report exclusive use of a system of teaching materials in sequences individually devised for each social-professional group covered by the literacy programme. Tunisia reports employing such a system in certain experimental classes for selected groups, as do countries in which pilot projects of the Experimental World Literacy Programme are in operation. Argentina reports that those responsible for each literacy programme are urged to produce their own learning materials suited to the needs and level of learners; a system of teaching cards is used.

It is expected that if functional literacy programmes are indeed to be selective and intensive, the use of sequential materials built around technical-vocational or even social learning problems will spread within the coming years. Indeed, the notion of learning units designed in this way is not confined to literacy or pre-vocational training but can be expanded to provide intensive, problem-oriented instruction at any level of complexity.

1. See: David Harman and Kowit Vorapipatana 'A Functional Literacy Project in the Provinces of Lampang and Prae in Thailand', *Bulletin of the Unesco Regional Office for Education in Asia*, Vol. V, No. 2, March 1971, p. 69–76. For a more detailed description of such materials and their use see: David Harman, *Development of a Community Based System of Fundamental Education*, Chapter IX, Ph.D. Thesis, Harvard University Graduate School of Education, June 1971. A modified form of this thesis will be published by Harvard University Press in 1972.

SELF-INSTRUCTION; GROUP LEARNING

These two types of educational experiences may seem diametrically opposed; what they share is a breaking-away from the notion of teaching as a process of transmission *from* the teacher (or teaching instrument) *to* the learner.

Self-instruction can be limited to the use of prepared materials, as in programmed instruction provided through books, filmstrips, or tapes, or of machines which react to the learners' choices, such as the 'talking typewriter' developed by Omar K. Moore in the United States. The general principle behind this kind of instruction is that if the learner provides (or chooses) a wrong answer to a given problem he is directed to further drillwork until he is ready to proceed to the next level. Thus, he works not only individually but also at his own speed. These forms of self-instruction are still largely in the experimental stage, although teaching machines are used with some adult learners in the United States, and Laubach Literacy Inc., in Syracuse, New York (United States), has produced a programmed series of self-instruction books for adults in English and is testing a version in Spanish.

Self-instruction can also mean supervised interaction between the student and the world, as the student applies his new skills outside the classroom. To give an example, in the intensive pre-literacy programme in Iran described above students are urged to write in a notebook all words they can decipher outside the classroom (for example, from signs, advertisements) as well as produce a short composition using words they already know between class sessions. This technique is used to demonstrate both that learning is largely a question of personal research and experimentation and that techniques used inside the classroom can be applied outside. Writing is an important form of self-instruction, in that it gives the learner an occasion to exercise his skills and also, in a more profound sense, allows him to express, and in the process formulate more clearly, his own thoughts.

By group learning is meant the involvement of learners as a group in adult literacy instruction. Group discussion is used in the Experimental World Literacy Programme's pilot projects, and also in the Paulo Freire method, mainly to draw out of the learners a definition of learning problems and to engage them in seeking solutions. In theory, at least, the bulk of what is learned is not taught, but discovered by the learners; the teacher or animator functions as a guide in this process. Group learning seems particularly suited to adults, especially those who lack any experience of formal education, and many Member States indicate that in one way or another this technique is being used in adult literacy programmes.

A WORD ABOUT ILLUSTRATIONS

One of the most striking trends in recent innovative adult literacy programmes is the important role given to illustrations. Introduction of technical-vocational teaching content, the awakening of social and cultural consciousness, the use of group-discussion techniques—these all involve the illustration, whether a drawing, diagram, or photograph, as the point of departure.

During the period under review there has been an increasing awareness of the fact that not all illiterates perceive illustrations as do literates. This is backed up by the results of experiments in the pilot projects of the experimental programme as well as elsewhere.[1] Attempts are now being made to extend these findings and, in the meantime, to test illustrations used in primers and on posters for comprehensibility and thereby determine the extent to which their potential audience finds them comprehensible.

At the same time, one of the aims of some functional literacy programmes, especially in an industrial environment, is to teach learners to correctly interpret widely used symbols, technical drawings, maps and other pictorial representations, since these representations constitute another form of language which members of a modern technologically oriented society need to comprehend.

RADIO AND TELEVISION IN LITERACY TEACHING

A survey made in 1969–71 of radio and television in literacy work,[2] plus replies from the 1969–71 questionnaire and other sources, indicate that use of these media for literacy teaching has been growing steadily in recent years. According to these data, which are certainly not complete, some twenty-three countries are using radio for literacy teaching while twelve (some of them the same) are using television for this purpose. (In contrast, a questionnaire sent out in 1964 revealed only ten countries using either radio or television for any aspect of literacy work.[3] The majority of these Member States report a single radio and/or television programme, which is the responsibility of a national ministry. In a few countries, however—Brazil, Peru and the United States, for example—a variety of radio and television literacy teaching programmes are offered by both public and private organizations. Thus, there are many more adult literacy programmes using these media than the numbers of Member States given above indicate.

The role of radio and television in promoting literacy work and the training of teachers is discussed elsewhere; here we describe some examples of literacy instruction for adult learners provided through these media.

Most literacy broadcasts are aimed at organized groups or registered individual students, usually working with supplemental materials under the direction of an animator, monitor or teacher. But these broadcasts are also received by many other listeners who are not organized or even accounted for. Research and sales of associated teaching materials indicate that, at the time the survey was made, 'outside' audiences exceeded 'direct' audiences by 2 to 1 in Jamaica and Laos, 4 to 1 in the People's Republic of the Congo, 5 to 1 in Iran, and 8 to 1 in

1. See, for example: Andreas Fuglesang, *Communications with Illiterates*, a pilot study of the problem of social communication in developing countries, published by the National Food and Nutrition Commission, Lusaka (Zambia), in 1969. A summary of this study appears in *Literacy Discussion*, Vol. II, No. 3, summer 1971, p. 47–50. See also, in the same issue (p. 51–69), an article by R. Couvert, 'Testing a Series of 13 Posters in the Taheza Valley', on an experiment carried out in a functional literacy project in Madagascar.
2. *Radio and Television in Literacy*, op. cit.
3. *Literacy and Education for Adults*, Supplement 1965, p. xxxvi–ix, Geneva and Paris, IBE and Unesco, 1964.

Tunisia. As more and more households obtain a radio or television receiver of their own this 'outside' audience can only grow. Organized listening or viewing, followed by group discussion, is generally considered more effective than solitary learning. Nevertheless, radio and television can reach people who, because of physical isolation, cultural barriers, or overriding shame of their illiteracy, cannot or will not attend normal courses.

Broadcast-teaching techniques show some interesting variations. In Yugoslavia, for example, the programme *ABC by Television* is constructed like a television serial around the story of an illiterate woman who finally learns to read and write; it is frankly designed to compete with entertainment broadcasts. The television series *The Future Begins Now* in the Arab Republic of Egypt combines classroom-type teaching and dramatized sequences in ninety lessons aimed at achieving fourth-grade literacy; lessons last half an hour and are broadcast three times a week. *Operation Alphabet* in the United States builds lessons around stories composed of six or seven sentences based on a 600-word vocabulary and related to problems of everyday life: transport, food and so on. It relies strongly on the personality of a single very effective teacher who appears during half-hour lessons five nights a week, with every fifth broadcast devoted to reviewing previously covered material. The whole programme comprises 100 lessons and is designed to lead to a third-grade literacy level. (In 1969 four other television programmes, all using supplemental books, were being broadcast in various parts of the United States.)[1] Mexico has been repeating the same course *(Yo Puedo Hacerlo* (I can do it)) for several years; the printed materials are divided into eighty lessons broadcast five times weekly and lasting about twenty-seven minutes each. In Guatemala, the radio literacy course is broadcast daily for six months; the two-hour broadcast combines literacy teaching with music and information on agriculture, health and so on. In Jamaica, filling in a crossword puzzle is a popular feature of the television literacy series.

Most programmes produce co-ordinated practice materials for students following broadcasts, usually primers or notebooks. In general, the survey report states that 'the textbooks used seem often to be the same as those used in traditional face-to-face literacy classes and do not seek to exploit the possibilities of visual correlation between the screen image and the printed page. This correlation is of course doubly important where materials are to be used by the individual student working on his own.'[2]

Mexico and Jamaica both supply the same printed teaching materials for direct teaching and for radio and television literacy classes (although Jamaica produces two sets of materials, one for rural and one for urban groups, and scripts for radio and television broadcasts are written separately).[3]

1. Angelica W. Cass, 'The Use of Television in Literacy Programmes in the USA', *Literacy Discussion*, Vol. I, No. 2, spring 1970, p. 19–24.
2. *Radio and Television in Literacy*, op. cit., p. 29.
3. In Jamaica comparisons between direct teaching and teaching with radio and television showed that the latter produced better results: drop-outs were fewer, progress was faster, students scored better at the end of the course. See: D. Martin, 'Together We Learn', *Literacy Discussion*, Vol. I, No. 2, spring 1970, p. 8–13. Mexico reports that literacy teachers using television

In contrast, Tunisia uses television broadcasting for the main burden of teaching, with radio broadcasting to supplement instruction by recalling material presented on the previous day's television show (although as it has turned out that many Tunisians follow only the radio broadcasts, seemingly with good results). Printed materials for learners following broadcast instruction in Tunisia are distinct from those used in traditional or specialized functional literacy classrooms.

The programmes described above aim at providing direct teaching of literacy skills through radio or television. There is another group of literacy instruction broadcasting, all on radio, which provides supplementary information to enrich literacy classes, while leaving the job of teaching skills wholly to a teacher or animator. This second type of literacy broadcasting is integrated into several of the pilot projects of the Experimental World Literacy Programme—for example, in Algeria, in the Sudan, in Mali (with the *Apprendre pour Produire* radio broadcasts), and in India, where the radio farm forum is an essential element in the farmers' training and functional literacy project. In the People's Republic of the Congo, the difference between, on the one hand, radio broadcasts informing literacy learners and initiating discussion about topics of interest to adults and, on the other, classroom instruction in literacy skills, is illustrated by the fact that literacy skills teaching is in French only, while radio broadcasts are in French, Munukutuba and Lingala.

As the survey report points out, interaction between broadcasters and listeners is crucial for effective teaching. Radio Sutatenza in Colombia, which has been operating literacy classes since 1947, employs a staff of about fifty to answer correspondence from listeners. In the People's Republic of the Congo a monthly broadcast answers listeners who have written in; new programmes are sometimes produced following readers' suggestions. In an experimental radio literacy programme conducted in 1969 in Zambia, listening clubs were provided with report forms to allow regular feedback between listeners and broadcasters; questions raised on the forms were answered by experts on the air or in writing, and a pamphlet containing some of these questions and answers will be published for the benefit of literate farmers and the local literacy officers. The form also provided evaluation data useful in expanding the programme.[1]

In some programmes, publications other than ordinary teaching materials are co-ordinated with radio and television teaching. Radio Sutatenza produces a widely circulated magazine, *El Campesino*. In Cameroon literacy students receive a fortnightly magazine illustrated with strip pictures from stories used in broadcasts and containing simple exercises. In Algeria texts of television lessons are published each day in the main national Arab-language newspaper. Paraguay reports an intensive experimental television literacy programme from January to April 1971 which was co-ordinated with the newspaper *La Tribune*. The Popular Radio Schools of Ecuador, which offer bilingual literacy instruction

usually get better results than those who do not. See: J. I. Reyes, 'Literacy in Mexico', *Literacy Discussion*, Vol. II, No. 1, winter 1971, p. 45–53. Of course, such results may be due to the Hawthorne effect, but this is exactly the point: in some situations radio and television can be novel attention-getting devices, and this quality can be exploited by literacy programmes.

1. Natesh, op. cit., p. 407.

in Spanish and Quechua, publish a bilingual monthly newspaper, *Jatari Campesino,* providing information to the rural population of fifteen provinces. In Yugoslavia the Belgrade daily paper *Politika* devotes a page to the literacy campaign every Saturday, giving programme content and instructions to teachers as well as reporting on people participating in the campaign. In addition to strengthening literacy campaigns, such press coverage, like programmes on radio and television, also serves to awaken the general public to problems of illiteracy.

8 Retaining, using and building on literacy

Increasing evidence in recent years of relapses into illiteracy on the part of former participants in adult literacy classes as well as school-leavers has emphasized the need for so-called 'post-literacy' activities for adults. At the same time, new ideas about the role adult literacy plays in social and economic development are also effecting changes in thinking about the kind of post-literacy activities the newly literate adult requires.

It is obvious, but nevertheless bears repeating, that adults who have acquired literacy and other skills must practise these skills unless they are to lose them very soon. This means, for example, that if new literates are going to remain able to read they need a supply of suitable printed materials which they are motivated to read. If, as in some functional literacy programmes, they have acquired certain work-oriented skills and knowledge they must have an opportunity to apply and develop these skills and this knowledge on the job. Thus, a man who has learned to compute fertilizer applications per square acre of land needs both the fertilizer and the land to practise on if this particular skill is to remain in his possession.

As we have seen, however, more and more governments and organizations are persuaded that adult literacy, while crucial, is only one step in a process of continuing economic and social development. Few persons designing or running functional literacy programmes will argue that these in themselves constitute sufficient training in new methods and techniques or a satisfactory exposure to the attitudes and outlook required to contribute to a modernizing society. In addition to an opportunity to practise what they have learned, new literates, it is felt, should have open to them opportunities for further formal and informal education.

Thus, post-literacy work has two aspects: encouraging the retention and reinforcement of literacy and other skills and knowledge learned in literacy programmes, and making possible continuing acquisition of new knowledge, skills and understanding so as to allow full use of the development potential the new literate has gained through becoming literate.

MATERIALS FOR USING LITERACY SKILLS

Even in countries saturated with printed matter, some school-leavers relapse into illiteracy because they fail to exercise their literacy skills.[1] One important task is producing and distributing acceptable reading materials, but another is getting people to read them.

Nevertheless, production and distribution are already half the battle, and here replies from the 1969–71 questionnaire and other sources indicate advances in these areas during the last three years. The main problem, stated over and over, is lack of financial resources: for editing and printing facilities, for paper, for distribution systems reaching isolated areas.

Periodicals and newspapers

Several countries report publication of periodicals or newspapers especially designed for new literates. Ethiopia produces a monthly newspaper edited by the Ministry of Education and Fine Arts and the pilot project. It discusses current events, practical information and cultural topics in simple sentences, using a selected vocabulary, and printed in bold type. Guatemala reports periodicals for new literates and Iran reports a weekly paper. Jamaica produces two periodicals: one is *Jamaica News,* issued in collaboration with the Jamaica Information Service, which covers current government news in language simplified by the Literacy Sector of the Social Development Commission. The other, *News for All,* is published solely by the Literacy Sector and presents news of literacy class and village activities, crossword puzzles, and feature articles. In addition, periodicals containing hymns and simple stories for new literates are issued annually at Easter and Christmas. Liberia produces a magazine, *New Day,* for new literates, and Malaysia issues a monthly publication giving information and publicity on development programmes. The Niger reports publication of several monthly newspapers edited regionally in local languages. Spain's special magazine for new literates, *Alba,* is produced in editions of 150,000 to 300,000 and distributed free. Thailand produces a bi-weekly one-page newspaper for adults in literacy programmes. Tunisia issues 25,000 copies each month of a newspaper written in a style and print suitable for new readers. The pilot project of the Experimental World Literacy Programme in Tanzania publishes four rural monthly newspapers in Swahili. These are edited within each district and reproduced in editions of 3,000 each; typewritten print is used except for a last page, printed by hand in larger letters for adults still in literacy classes. The Literacy Service of the People's Republic of the Congo issues a mimeographed newspaper, *Fungula Miso* (Open your eyes), every two months in editions of 8,000. Literacy House in Lucknow (India) produces a monthly family magazine in Hindi, *Ujala,* for newly literate farmers and workers.

A second device is to devote part of a regular newspaper or periodical to features for new literates. Arab-language newspapers in Tunisia publish daily

1. See the discussion of functional illiteracy in developed countries in Chapter 1. According to a study made by the Syndicat National des Éditeurs in France and quoted in *Le Monde*, 3 December 1970, over half the people living in France rarely, if ever, open a book.

literacy lessons and occasional articles for new readers. The Tanzanian Swahili-language national daily prints one page a week in large type edited in simple language for new literates. In Zambia special sheets for new literates are inserted into vernacular newspapers. Venezuela's periodical *Mar de Cosas* contains a special supplement in simple language for new readers.

Wall newspaper are another form of timely reading material. They can be produced locally, sometimes even by hand, at little cost. Ecuador and Venezuela mention using wall newspapers as reading material for new literates.

Other reading materials

As for books, pamphlets, brochures and other forms of non-periodical reading matter for newly literate adults, replies to the questionnaire indicate that availability varies widely. Some Member States report a complete absence of specialized reading material for this group, while in a few countries follow-up literature consists of graded textbooks prepared for adult basic education classes attended after literacy instruction. Other countries answering the questionnaire report that a variety of materials are produced which, in language complexity and subject-matter, suit the needs of new literates. Ecuador reports a system through which readers and teachers or supervisors evaluate the usefulness of such materials, with the findings being used to determine characteristics of future publications.

Most true follow-up literature (that is, literature carefully graded to match the new literate's still shaky grasp of reading skills as well as printed in very readable type) is produced by national literacy services or organizations specialized in this work. Literacy House, for example, has published some 127 books and 60 pamphlets for new readers. Sometimes material already in print is reissued in a simpler form for new literates; in Jamaica, for example, the Literacy Sector has simplified informational pamphlets put out by other governmental departments and agencies.

Literacy House also trains writers from different language regions in India to compose books that present practical content in simple language. Many writers' workshops on reading materials for new literates have been held at the regional and national levels in various parts of the world in recent years. Indonesia, for example, has organized a number of such workshops to train participants in gathering data on new literates, writing simple manuscripts and testing them in the villages; an important by-product is production of new manuscripts.[1]

1. Soenarjono Danoewidjojo, 'Post-literacy Activity in Indonesia', *Bulletin of the Unesco Regional Office for Education in Asia*, Vol. V, No. 2, March 1971. This article also explains that following a literacy campaign village communities are required to put up signs naming every street and public place, hang signs on each house giving the name of the household's head and maintain a bulletin board in every neighbourhood on which news about local events is displayed. Orders and announcements from the village headman are to be made in writing, and the village hall and neighbourhood council meeting-places should have posters and other printed matter displayed on the walls. The idea is to 'enhance the reading-mindedness of the newly literate adults'.

Another way to generate reading material for new literates is through contests for manuscripts. In 1970 Tanzania opened such a contest, with prize and publication money provided by the Danish National Commission for Unesco; the response was enthusiastic and several publishable manuscripts resulted. In Rwanda in 1971 the Catholic charity Caritas organized a contest for manuscripts written in Kinyarwanda for people newly literate in this language; the most suitable of those received will be published for sale at modest prices.

In some cases reading material is sold, in others it is distributed free, and in still others it is available through libraries. Burma among other countries has set up village libraries as part of follow-up activities in the national campaign. The Experimental World Literacy Programme's pilot projects in Ethiopia and Tanzania have established libraries for new readers in their areas of operation. Literacy House runs a service to bring books to village people through such devices as bicycle libraries, and so on. Indonesia has set up 'intermediate' libraries in villages and hamlets where suitable booklets and scripts are provided free to new literates; these are expected to serve as a bridge to larger public libraries at sub-district and regency levels. Tunisia reports that there are libraries for new literates in many of the national literacy centres and Thailand reports that books for new literates are available in school and public libraries. Libraries are part of the equipment of the mobile vans used in Venezuela as described earlier; in the farmers' training and functional literacy project in India, six mobile vans provide book-lending services as well as facilities for film and slide projectors and outdoor projection equipment.

Providing libraries is not always enough, especially in a rural environment where printed matter has been non-existent or the property of a privileged few and exchange of ideas takes place in a social context. While the literate adult can feel he is 'exchanging' ideas when reading a book in isolation, illiterates and new literates often associate exposure to new ideas and arguments with group participation. These people must have evidence that the hard work of reading through a book or pamphlet or brochure on one's own is worth the effort. The pilot project in Tanzania began an experiment in 1971 to provide this evidence. The project formed several experimental discussion groups guided by trained discussion leaders; the groups used printed materials as a basis for discussion of topics of interest to rural adults and the discussion leaders referred members to further materials on the same subject as interest grew. The project's library specialist feels that such discussion groups can help lead adults from reliance on an oral culture to the realization that books too can be made to 'talk'. Other transitions from oral to written sources of information are planned in this project: for example, radio broadcasts built on the farm-forum model during which the broadcaster refers to the printed material on the topic discussed and tells listeners where to obtain it. Indonesia has also used post-literacy reading and discussion groups in areas with a tradition of holding occasional meetings for reciting scriptures and epic poems; the group leader reads from a book, magazine or news-sheet on a subject related to community development, then leads a discussion on community problems which sometimes results in action decisions.

Materials to Promote Retention of other skills

Providing materials to promote retention of writing and computation skills is even more difficult than producing follow-up reading materials. The new literate may exercise these skills himself, especially if he acquired them for a specific purpose such as writing letters or ensuring he is not cheated when he sells or purchases goods. But structured materials are also required to motivate and guide him. Some of the pilot projects of the Experimental World Literacy Programme have devised such materials; for example, in rural Mali former literacy-class participants in the pilot project receive small notebooks in which to record various data important in their farming work.

The above are only a few examples of current activities designed to motivate newly literate adults to practise their skills and supply them with the means of doing so. Since providing post-literacy materials helps strengthen literacy skills in school-going children and school-leavers as well as in unschooled adults emerging from literacy classes, it is unfortunate that organisms responsible for this doubly valuable task usually work with grossly insufficient funds.

OPPORTUNITIES FOR CONTINUING EDUCATION

Replies to the 1969–71 questionnaire indicate that in a number of countries newly literate adults have opportunities to continue their education. These fall roughly into two categories: night classes largely patterned after the school curriculum and vocational training courses.

Night classes for adults of the traditional kind, even if adapted to adults' interests, usually provide a 'second chance' at education received by and designed for children. The teaching programme is often divided into 'primary' and 'secondary' levels, and adults are expected to work towards a school-equivalency certificate. In some countries these classes function only in urban areas; they are sometimes offered by profit-making institutions at considerable cost to students. In other countries a tremendous effort has been made to bring this second-chance form of education into rural areas as well. Although there is general agreement that school education itself needs reform and that educational programmes and standards designed for children are unsuited to adults, the fact remains that, in many countries, school-equivalency certificates not only provide a certain prestige but are absolute requirements for many kinds of employment.

The school certificate may allow a new literate to obtain a job (unless, as happens so often, it merely allows him to join the ranks of the 'qualified' unemployed), but it does not necessarily prepare him to perform it any better. For this he needs vocational training. A number of countries answering the 1969–71 questionnaire report that such training, more or less correlated with manpower needs and job opportunities, is available to new literates. As mentioned in Chapter 2, many vocational training programmes require literacy for entrance; Hungary states directly: 'Literacy opens up possibilities of vocational training for the worker.'

Now that functional literacy programmes are becoming more widespread, the question arises whether these programmes should not lead into a kind of

post-literacy training which would also be functional in concept and design. Thus, if adults are provided with literacy education based on specific social, economic and vocational learning requirements, should they not also have the possibility of further education just as closely derived from their most pressing educational needs, an education that does away with reference to traditional school systems and takes a wider view of post-literacy activities than that of simply striving to retain skills?

Only a scattering of countries answering the 1969–71 questionnaire hint at the possibility of integrating functional literacy programmes into a form of continuing, and continuingly functional, education for adults, without set horizons. Chile, for example, states that 'consideration is being given to the possibility of implementing a Study and Labour Training Programme with a double purpose: to allow for the development of socio-political awareness geared to the interests of the worker, and to promote improvement of manpower within a continuing integrated process', adding that in urban areas programmes to link post-literacy (basic) education and professional training are now being developed.

Senegal reports: 'Literacy as now conceived should prepare participants for vocational training. For such training to be possible, workers must have a certain level of knowledge which will vary according to the sector concerned. Literacy therefore represents a pre-vocational training, the programme for which is established with those responsible for the relevant sector. Thus, the preliminary survey under way in the West African Water and Electricity Company will try to determine what the workers should know in order to take full advantage of the vocational training, opportunities which will constitute the next stage in their preparation.'

The Niger reports that some 90 to 100 new literates in public and private enterprises are continuing technical and professional training following a functional approach, while in rural areas some 1,500 to 2,000 adults made literate in national languages 'take part in training seminars on village co-operation for pharmacists; managers; weighing specialists; watchmen; chairmen, secretaries and representatives of co-operatives; seed-stocking staff; literacy instructors, etc. . . . Within two years this activity will have involved 60,000 co-operative members.'

Some functional post-literacy education for adults can be informal and self-directed, since new literates will hopefully have been made aware of sources of information and technical help (libraries, radio forums, agricultural extension and health-care services); some can be organized—for example, courses to introduce farmers in a given area to a new technique or process, professional and technical up-grading programmes within industries. Ideally some functional post-literacy education would be demanded by adults who themselves come to realize that they need further knowledge and skills in order to move forward, and take the initiative in defining these needs and organizing to ensure that they are met.

PROVIDING A LITERATE ENVIRONMENT

This chapter is limited to reporting and commenting on organized schemes to promote the retention and development of abilities acquired in literacy classes.

Such schemes are absolutely necessary, but in many cases they are not enough. More and more evidence seems to point to the fact that what may really account in large part for retention or loss of these abilities is the presence or absence of something termed 'a literate environment'. A literate environment is one that not only offers the new literate opportunities to develop what he has already acquired, but also a social and psychological climate conducive to his doing so. It is an environment in which literacy is useful and everyone naturally wishes to attain literacy skills.

If this description of the literate environment sounds vague, that is because the concept is still vague. However, specialists interested in problems of retention are making an increasing effort to define a literate environment, determine how it can be created and learn what factors in it promote the retention and development of literacy in adults. This study is inspired by the premise that true democratization of education is not possible until both the educational opportunities and the environment promote the continuing education of adults.

9 Supporting adult literacy work

This chapter describes some of the continually increasing efforts aimed at informing people about adult illiteracy and gaining support for literacy work during the period 1969–71. It then examines the means allocated to carrying out this work during the period under review and prospects for financial allocations to adult literacy in the coming years.

ALERTING PUBLIC OPINION

Most countries answering the 1969–71 literacy questionnaire describe efforts to inform the public about the problem of adult illiteracy at home or abroad and about actions aimed at attacking this problem. From these replies it is clear that there are several groups needing information, for different reasons: for example, public officials and other influential persons, who might be able to determine policy for and allocate funds to literacy; the literate public, who can volunteer services and contribute funds; illiterates, who may not be aware of the need for and availability of adult literacy instruction.

Several countries mention the role of co-ordinating committees in alerting the public. These committees, by their very composition, can pull into the literacy effort representatives of industry, voluntary agencies, workers, the educational establishment and other bodies who can then influence the group they represent to take action. Further, the committees themselves can actively promote such efforts with both officials and the public.

Some Member States (Mali and Senegal are examples) report that anti-illiteracy committees are formed not only at national and regional levels but also within individual public and private enterprises. At this level such committees can count among their members representatives of the potential participants in literacy programmes; they seem an excellent device for awakening interest and spreading information.

Meetings that bring together people concerned with education and development to exchange ideas and develop policies are an important means of creating awareness among influential groups. Examples of such gatherings are the Round Table of Bankers, Economists and Financiers on Literacy held in Rome in 1969, the European Round Table on Integration of Literacy Programmes in Economic Development Projects held in Turin in 1970, and the World Trade Union Conference on Functional Literacy held in Cyprus in 1970.

Specialized organizations such as labour unions, women's and youth groups, and religious organizations can inform both their own membership and the public in general about adult literacy efforts.[1] In countries where literacy is not a great problem these groups can alert people to illiteracy elsewhere in the world and raise money for programmes. An example is the information and fund-raising campaign carried out by secondary-school students in Denmark and Norway; the sum they raised is now supporting an Experimental World Literacy Programme pilot project in Zambia.

A device through which private and voluntary organizations can inform the public about literacy programmes and raise funds for literacy work in other countries is the Unesco Gift Coupon Programme. Through this programme people in one country buy units in an international currency which are then used to send equipment and supplies to Unesco-approved projects covered by the scheme in other countries. To give an example of how this works, the International Council of Women sells book-plates to raise money for Unesco Gift Coupons destined for literacy projects in Cameroon, Colombia, Lebanon, Mexico, Nepal, Nigeria, Peru and Uganda. The book-plate states: 'The purchase of this book-plate . . . has helped a woman and her family, somewhere in the world, to learn to read and write.'

The personal support of an influential figure can give special meaning to adult literacy campaigns. His Holiness Pope Paul VI has often expressed his lively interest in and support for the advancement of literacy efforts around the world. In Iran, the Shah and his family make a personal contribution to the literacy campaign. In Liberia, the President includes a statement in each Annual Message encouraging the population to participate in literacy activities. The President of Tanzania has devoted all his Annual Messages for 1970 and 1971 to the importance of adult education to the nation, with special emphasis on literacy; for 1971 he designated several special areas of the country to be freed from illiteracy by the end of the year, in time for the nation's celebration of ten years of independence. In the United States the President's Right To Read programme is designed to alert Americans to the seriousness of inadequate literacy among adults.

As far as reaching potential literacy-class participants is concerned, the means used depend on the attitude of illiterates, the country's economic and demographic characteristics and the resources available.

Israel, with a relatively dense population and a small minority of illiterates, reports that although mass media are used, 'the main achievements are gained through the individual approach to potential learners, in their homes or in their place of work'. The Dominican Republic reports a similar use of home visits by members of voluntary organizations. Films, filmstrips and travelling exhibitions are often cited as motivational tools; several countries mention the use of mobile vans equipped with these media which travel to outlying villages.

1. The double-edged action of such groups is indicated in the response of the World Federation of Trade Unions: '. . . the role of unions in respect of literacy [partly consists] of making the working population aware of the literacy question and of putting pressure on the authorities to induce them to play their role . . .'

Where television is available to illiterates (primarily in the more developed countries) it should make a good motivational and informational tool; elsewhere it can awaken the more educated, wealthier segments of the population to the problem of illiteracy and suggest how they can help. Radio seems an even more promising medium for motivating illiterates and providing information on where to find literacy instruction. According to the report on radio, television and literacy previously cited, however, these media are not being used to full advantage. The study states: 'One important use of both media which a number of correspondents mention tends to be underemphasized. This is their use in promotional campaigns to create favourable climates for literacy programmes.'[1] The report does, however, cite effective promotional campaigns using both media in Algeria, Burma, Kenya and Tunisia, and describes one particularly impressive case of the use of television: 'How television can help publicize literacy campaigns is strikingly illustrated by the following observations from the Yugoslav reply to the questionnaire: "Television has given a new impetus to literacy work already going on. Thanks to the literacy type of programme shown on TV, the problem of literacy was brought home to the public in all its sharpness. It may be said that illiterates and the difficulties they face became a topic of general conversation and were taken up on radio and in the press and at meetings of the Republic Assembly".'[2]

Another generalized promotional technique mentioned in questionnaire replies is publicizing achievements in literacy. In the national campaigns of Burma, villages having become 'free from illiteracy' were made the scene of celebrations attended by important officials. The dedication of an adult literacy centre or a village library for new literates is another occasion to publicize literacy activities and stress the need for further action; mass media can contribute by giving wide coverage to such events.

Contests are still another means of promoting literacy work among the public. In connexion with a vocational literacy programme launched in 1970, the Ministry of Education of Iraq held a competition with cash prizes for designs of a gold medal for special literacy efforts, and for the best story and the best song promoting the literacy drive.

International attention is drawn to adult literacy activities and the need to combat adult illiteracy by two annual events: the awarding of internationally sponsored prizes for literacy, and the celebration of International Literacy Day.

Since 1967 the Mohammad Reza Pahlavi Prize (worth U.S.$5,000), offered by H.I.M. the Shahinshah of Iran, has been awarded each year to an institution or individual having made particularly effective contributions towards spreading literacy. During the period under review, the Government of the Union of Soviet Socialist Republics created, in 1970, a second annual international prize for literacy, the Nadezhda K. Krupskaya Prize (worth 5,000 roubles).

Winners and honourable mentions for both prizes are chosen by an international jury and the prizes are awarded on International Literacy Day. Recipients for 1969, 1970 and 1971 are listed in Appendix V.

1. *Radio and Television in Literacy*, op. cit., p. 16.
2. ibid.

Each year, International Literacy Day, celebrated on 8 September, receives more and more attention in both the developing and the developed countries. During the period under review there has been a marked trend to complement speeches, messages, meetings and parades with the initiation of important action programmes: opening of new literacy classes, organization of training courses or seminars for literacy workers, inauguration of literacy centres and libraries for new literates. On a broader scale, International Literacy Day has also been celebrated through the proclamation of new laws governing literacy and adult education, expansion of financial commitments to literacy programmes and the organization of fund-raising campaigns. Finally, a number of important publications and special issues of periodicals appeared on this day in 1969, 1970 and 1971.

International Education Year (1970) was marked by some countries and organizations by activities specifically related to adult literacy. Tanzania, for example, proclaimed 1970 *adult* education year, while Paraguay chose to call it literacy year. Burma linked celebration of International Education Year with the extension of her literacy campaign from a pilot district to two more districts; several other countries chose the initiation or extension of literacy programmes as their contribution to the Year. Elsewhere seminars or workshops on literacy were held and funds and equipment were donated to literacy programmes within the context of the Year. Similarly, towards the end of the 1969–71 period, plans were being made for connecting the celebration of International Book Year (1972) with literacy efforts, especially programmes for producing and distributing reading materials for new literates.

THE MEANS

What information is available on financial commitments to adult literacy indicates a large discrepancy between intentions stated by governments and other agencies, promotional efforts to create concern about the problem of illiteracy and the financial means actually allocated to attacking illiteracy through adult literacy education.

Public expenditure

National governments—sometimes aided by state or municipal authorities—bear the major financial burden for all public education, including adult literacy.

In developing countries, where illiteracy poses the greatest problems, expenditure on education has grown rapidly in the last two decades, especially in the 1960s. For fifty-four developing countries in all regions in 1968, the last year for which data are available, the ratio of GNP spent on education was 3.91 per cent, against 2.73 per cent eight years earlier. (Figures for thirty-one developed countries in 1968 are 4.80 and 3.52 respectively.)[1]

On average, developing countries spend about the same percentage of the total budget on education as developed countries. (This percentage is particularly high in Africa, where the average expenditure for thirty-six developing countries

1. Unesco Statistical Office.

and territories in 1965 amounted to 16.5 per cent of total budgets, against a world average of 15.5 per cent for that year.[1] The absolute amount spent by developing countries on education, however, is much less than that spent by developed countries. As stated in the Introduction earlier, total world-wide expenditure on education reached U.S.$132,000 million in 1968, but $120,000 million of these were accounted for by developed countries. Thus, in areas where illiteracy is highest, the absolute amount spent on education as a whole is lowest.

It is difficult to discover what part of this growing public expenditure on education goes to adult literacy. Data on public expenditures for literacy alone are very rare, and even figures for adult education as a whole are difficult to obtain. Further, these data are not easily comparable internationally; in some nations, especially the developed ones, adult education includes academic and vocational instruction at the secondary, university and even post-graduate levels, while in others it involves mainly adult literacy and other courses for persons with little or no formal education. In some cases figures given for adult education cover only money allocated to the ministry of education, although funds are spent for adult literacy by other ministries—for example, those of agricultural and community development, national defence (literacy programmes for soldiers), the interior or of justice (programmes for prison inmates or police recruits).

Nevertheless, it is worth looking at the data for forty-four Member States of Unesco which have recently supplied reliable figures on the percentage of total public expenditure on education being allocated to adult education and literacy programmes. These forty-four include both developed and developing countries (though of the five countries spending over 3 per cent of the budget on adult education and literacy only two are developing nations). Of these forty-four countries, twenty-three spend less than 1 per cent of the total education budget on adult education and literacy, ten spend between 1 and 2 per cent, six spend between 2 and 3 per cent and only five spend more than 3 per cent.

The figures speak for themselves: in three-quarters of the countries covered, less than 1 per cent of the public funds allocated to education go to adult education (of which adult literacy is, in most cases, only a part). As a review of adult literacy activities during the period 1969–70 in Latin America comments: 'The limited nature of the financial resources available for literacy in the countries of this region is evident.'[2]

The 1969–71 literacy questionnaire asked Unesco Member States if their public expenditure on adult literacy had increased or decreased during the period under review. Nations stating that illiteracy has presented little or no problem for some time did not answer this question, while some of the other respondents had no precise figures available. Of the twenty-three nations that did supply data,[3] fifteen noted an increase, four said that expenditure on literacy

1. *Aid to Education in Less Developed Countries*, op. cit.
2. Second CREFAL Seminar on Functional Literacy in Latin America, Lima, Peru, March 1970, *Final Report*, p. 52.
3. Argentina, Burma, Cyprus, the Dominican Republic, Ecuador, Ethiopia, Guatemala, Jamaica, Jordan, Kuwait, Malaysia, Mali, Mexico, the Niger, Paraguay, Peru, Saudi Arabia, Spain, Thailand, Tunisia, Turkey, Venezuela and Zambia.

remained about the same or varied from year to year, and four noted a decline due to a decrease in the number of illiterates. Venezuela commented that the trend was to reduce spending on literacy proper while increasing funds directed at programmes for new literates.

A look at the financial situation of one nation with a high illiteracy-rate may illustrate the problem of financing literacy activities more clearly. Speaking at the National Seminar on Adult Education at Bangalore (India) in September 1970, V.K.R.V. Rao, then Minister of Education and Youth Services of India, advocated an emergency national programme to reduce the number of illiterates in the age group 15–25 from 150 million to 50 million by 1981. Assuming an average cost of 30 rupees per person, India would need to spend some 3,000 million rupees to make 100 million young people literate over the next ten years. But, Dr Rao pointed out, actual provision for literacy in the fourth Five-Year Plan (1969–74) is 100 million rupees. The only hope of achieving such a goal would lie in the massive use of voluntary funds and manpower.[1]

Financing from private sources

To what extent is such non-official support forthcoming? Only scanty information is available from Member States on financing of literacy instruction for adults from sources within the country other than the national or regional governments.

One source of supplemental funds would seem to be the community itself; several countries mention that local communities raise money to furnish and maintain literacy centres or, as in Zambia, to pay teachers and purchase reading materials.

Another source is private business; Chapter 2 describes some examples of literacy programmes for workers provided by private enterprise. Sometimes the costs of such programmes are shared between the enterprise and the government: Tunisia notes that certain large enterprises cover from 20 to 100 per cent of the cost of government-sponsored literacy programmes, while Greece reports that private organizations are subsidized by the State for up to 75 per cent of the expenses of literacy programmes they themselves run.

A third source of private funds, probably the largest but the most difficult to quantify, consists of non-governmental agencies such as unions, voluntary organizations and religious groups.[2] Some of these groups draw on funds from abroad—from international organizations to which they belong or from sympathetic groups in developed countries. Some receive subsidies from the national government: an example is the Amicale pour l'Enseignement des Étrangers, an

1. Reported in *Literacy Today*, No. 4, November 1970.
2. A study of literacy activities in Kenya in 1969 showed that nearly 70 per cent of adult literacy students were enrolled in classes run by voluntary agencies or self-help groups (groups organized locally or by the national women's organization). Some nineteen voluntary agencies, most of them religious organizations, were running classes. In addition, four industrial firms were running a total of ten classes.—Bengt Linne, 'Survey on Adult Literacy Work in Kenya', May 1969 (mimeo.) A résumé of this study appears in *Literacy Discussion*, Vol. II, No. 1, winter 1971, p. 38–43.

independent organization subsidized by the French Government which conducts literacy classes for immigrant workers in France. In the view of at least one non-governmental organization answering the questionnaire, Associated Country Women of the World, the efforts of such sources are most effective when they operate within a framework of national policy.

The report on literacy in Latin American countries cited above says that the financial contribution of private bodies such as unions and enterprises seems to be increasing within that area. Most of the countries replying to the questionnaire, however, state that the value in financial terms of non-public efforts to promote literacy, important as these may be, is impossible to determine.

Official and non-official bilateral aid and literacy

A study recently issued by OECD[1] estimates that official bilateral aid for education given by the sixteen members of that organization's Development Assistance Committee[2] to developing countries totalled over U.S.$700 million in 1968, the most recent year for which figures were available. Aid to education accounted for about 10 per cent of the total official bilateral flow of resources to developing nations, and about 40 per cent of official bilateral technical assistance, from these sixteen countries. Many other economically developed nations that are not members of this organization devote a comparable share of their official bilateral aid to education.

How much of this aid goes to literacy programmes for adults is very difficult to determine. The OECD report makes little mention of literacy education (or even adult education) in describing forms of aid to education, although some of the areas of bilateral aid cited by the Development Assistance Committee members—for example, training at home and abroad of educational specialists, promotion of vocational and agricultural education, education research, provision of educational equipment and materials—may contribute to literacy programmes.

Replies to the 1969–71 literacy questionnaire indicate that bilateral aid to literacy falls into three main categories, as follows :

Opportunities for specialized study at institutions abroad or through study tours. For example, Israel offers training in literacy work at the Mount Carmel International Training Centre for Community Service in Haifa; France organizes meetings of experts, seminars and study tours; Mexico offers fellowships to citizens of other countries for study at CREFAL; Spain covers the travel and study expenses of Latin Americans who study adult literacy methods in Spain.

Technical aid in the form of experts. Spain sends experts to Latin America to help with literacy efforts there. France reports providing fourteen experts to French-speaking countries in Africa and Madagascar in 1971. Venezuela has sent literacy experts to the Dominican Republic and Paraguay.

Supply of needed materials. Burma considers the gifts from several countries of pressure lamps, torches and batteries for night classes as well as copy books

1. *Aid to Education in Less Developed Countries*, op. cit.
2. Australia, Austria, Belgium, Canada, Denmark, France, Federal Republic of Germany, Italy. Japan, Netherlands, Norway, Portugal, Sweden, Switzerland, United Kingdom, United States,

to be an important factor in the success of her current literacy campaign. Kuwait supplies teaching materials to several Arab countries. Spain provides teaching materials and equipements to Latin America, and Venezuela has supplied many copies of the primer used in her national literacy programme to Bolivia, the Dominican Republic, Honduras, Nicaragua, Panama and Paraguay.

The OECD report cited above suggests that total bilateral aid to education from the members of the OECD Development Assistance Committee may amount to around U.S.$1,000 million a year when the contributions of private non-profit organizations such as foundations, churches and private business firms with interests abroad are counted in. However, as mentioned above, these private contributions are impossible to quantify.

Financial aid from international sources

The major part of the funds spent by international agencies on literacy efforts do not cover operating expenses but go instead for technical assistance—expert help in the design and operation of literacy projects and training of national experts—as well as for supporting activities such as exchange of information on literacy, publications and dissemintion of documents, and so on. For this reason financial data on this contribution are not really comparable to figures above for national expenditures, since the latter mainly cover operating costs. None the less, as can be seen from the example shown in Table 7, the place literacy occupies in the total programme of international agencies concerned with education and development is significant.

To these funds available to Unesco should be added an important source of financial aid for literacy: funds in trust given to functional literacy projects

TABLE 7. Financial commitments to literacy (in U.S. dollars) of Unesco and UNDP (administered by Unesco)

Year	1969	1970	1971[1]
Unesco's financial commitment			
Total Unesco budget	37 536 392	39 323 812	44 949 280
Total budget for education	8 468 325	8 710 305	10 104 630
Total budget for literacy	760 649	778 976	941 718
UNDP's financial commitment			
Total UNDP budget allocated to Unesco	27 575 119	31 593 149	34 711 000
Total of these UNDP funds allocated to education sector	11 734 367	15 238 131	16 374 350
Total of UNDP funds for education allocated to literacy	2 289 038	3 076 972	2 340 500

1. Estimations.

within the Experimental World Literacy Programme, to be administered by Unesco. As of the the latter part of 1971 funds in trust had been received from three sources already mentioned above: SIDA for a functional literacy project in Kenya; FOPOTEC, for a project in the Niger; and the Secondary Schools Students Association of Denmark and Norway, for a project in Zambia.

AID FOR EXPANDING LITERACY PROGRAMMES

Asked to name factors holding back the spread of literacy and preventing the success of existing programmes, most Member States replying placed at the top of the list inadequate financial resources. Why should this be?

Perhaps one reason is that while school education is universally accepted as a necessity, adult literacy education still has to 'prove' the contribution it can make. As the report on literacy activities in Latin America referred to above suggests: 'It is probable that one of the essential problems hampering the allocation of funds to literacy is the lack of integration of adequate systems of evaluation research, on the one hand, and evaluation of general expenses, on the other. In the majority of countries, budgetary practices do not permit application of special budgetary systems to specific programmes.'

Unfortunately, 'proving' the contribution of adult literacy requires diverting some of the terribly scarce resources budgeted for adult literacy activities to serious research and evaluation. Although this is exceedingly difficult in an area where the need for immediate action is so evident and so pressing, it would seem to be a matter for top priority. Here the Experimental World Literacy Programme is already at work, and the results of evaluation expected in the coming years should mark a new stage in our knowledge about how functional literacy works, how much it costs and what results it can bring about.

One thing is certain: no increase in funds capable of matching the need for adult literacy programmes can come from the budgets of most developing countries. These nations are already strained to the limit of their financial possibilities in responding to current necessities, and the most that can be hoped for is a readjustment in educational priorities so as to give greater emphasis to adult literacy.

Bilateral aid to adult literacy from the more developed countries could and should increase. Ideally, every development programme financed from bilateral sources should have a functional literacy component.

Unesco will certainly continue to concentrate on technical assistance to literacy. But the amount of funds it can devote will depend on its operating budgets and the priorities set for these budgets, which in turn depend on the allocations made and the wishes expressed by Member States. The granting of funds in trust by governmental and private agencies for administration by Unesco, as described above, is a very promising trend, and hopefully it will grow as the actions and results of the Experimental World Literacy Programme are evaluated and made known throughout the world.

Even taken together, however, these sources will not suffice to meet the need—and the potential. For the paradox is that just as functional literacy for adults is revealing itself as an efficient tool both for the eradication of illiteracy

among large numbers of adults and the stimulation and promotion of economic development, the means available to apply this approach in the near future are, by all accounts, insufficient.

Thus, new sources of financing are required. The most logical of these are international agencies and funds aimed at promoting development.

As we have seen, UNDP has already contributed to the Experimental World Literacy Programme. But, while it is possible that UNDP allocations to functional literacy programmes will increase in the coming years as a result of priority requests from Member States, the degree to which they can grow is limited by the availability of resources within UNDP itself.

There remain, then, IBRD, regional development banks, and even private banks which finance development projects. These sources have already shown interest in functional literacy as a factor in development, and Robert McNamara, President of the World Bank, has recently reconfirmed his intention of directing financial assistance to educational endeavours which will contribute significantly to economic development, among which he counts functional literacy.

If adult literacy, especially functional literacy, does indeed contribute to, and in many cases is a prerequisite for, development—and the evidence seems to support this hypothesis—then financing adult literacy programmes should become as important an investment in development during the Second Development Decade as provision of technical assistance or material goods.

Conclusion

Throughout this report reference has been made to the fact that illiteracy and underdevelopment are often found together, and to the idea that literacy and development are strongly linked. These relationships, various aspects of which are still under analysis by economists and other experts, have been accepted as realities by many nations. Today the belief that people are a prime factor in development is the basis for most adult literacy activities. For this reason it is especially important that the conditions under which literacy can best contribute to development be clearly defined. In this area the Experimental World Literacy Programme is making an invaluable contribution by examining the effects of functional literacy in a number of comparable but diverse projects integrating literacy with development programmes, and the results of this examination should be of widespread interest and value.

Another theme running throughout this book is the relationship between adult literacy and other forms of education. More and more, education is being viewed as a continuing process; in today's world the need for education is permanent and even the highly educated require further training in new skills and techniques. Looked at in this perspective, adult literacy is not remedial attention given to a group of forgotten human beings; it is simply one stage in meeting a continuing need that affects us all.

The breaking down of barriers between various stages of education opens great possibilities for the exchange and adaptation of methods, materials and techniques. Recent experiments with functional literacy, especially within the Experimental World Literacy Programme, seem to have developed some valuable ideas with great potential for the regeneration of education as a whole. For example, it could be assumed that the concept of problem-oriented learning, involving the participation of the learner in acquiring the intellectual and manual skills he needs in order to identify and solve his own most pressing problems, can be applied to any group at any age.

Another technique providing exciting possibilities for more widespread use is the operational seminar. This practical learning-by-doing system of training personnel in the theory and application of functional literacy can not only provide new corps of literacy workers but can also be applied to spreading other new concepts and methods during the renovation of all forms of education expected in the coming years.

As more and more adults are beginning to acquire functional literacy, the

concept of post-literacy activities for adults is changing; meeting the educational needs of people with simple literacy skills who have grown to think of education as a permanent requirement calls for new kinds of learning experiences which bridge the gap between literacy education and more complex subject-matter. Self-education, courses for new literates built around problem-solving, wide use of media such as radio and television, encouragement of a 'literate environment'—these are some solutions already proposed. But these techniques will need to be further elaborated, tested and evaluated in urban, village and rural settings around the world to determine which are the most efficient, economical and appropriate in various kinds of environments.

Thus, 1969–71, the transitional years between the First and Second Development Decades, have produced and brought towards maturity several promising new concepts and instruments of literacy education for adults. Some of these are ready for the next logical step—widespread diffusion and possible adoption by comprehensive national literacy programmes. Others need further testing in experimental situations. The development of these new concepts and instruments makes the shortage of financing for literacy education even more regrettable, since without a significant increase in funds the potential success of literacy tools now available will never be realized.

This report indicates throughout that the trend in adult literacy education at the beginning of the Second Development Decade is towards the incorporation of literacy education into national plans and programmes for development, the elaboration of new methods and materials and the training of expert personnel. This might seem to indicate the formulation of a highly professional attitude towards literacy education—that it is becoming the province of national planners, administrators, and experts only.

It is true that literacy activities require professionalism. But it is also true that the provision of literacy to adults is and will remain the business of everyone, for without the interest and the efforts of a broad spectrum of the population in all countries the world-wide problem of illiteracy will never reach solution. Those in positions of public and private leadership, those responsible for financing development, the literate population at large, professionals with services to offer—all can press for added attention and greater financial support for literacy education, and many can lend invaluable aid in organizing, teaching and providing follow-up services to literacy programmes.

Above all, the will of illiterates themselves to become literate should make it impossible for those of us who can read and write to forget the millions for whom this human right remains a remote aspiration.

Appendixes

I Member States replying to the 1969–71 literacy questionnaire

Argentina
Australia
Austria
Barbados
Belgium
Brazil
Bulgaria
Burma, Union of
Byelorussian Soviet Socialist Republic
Ceylon
Chile
Colombia
Congo, People's Republic of
Cuba
Cyprus
Czechoslovakia
Dahomey
Denmark
Dominican Republic
Ecuador
Ethiopia
Finland
France
Germany, Federal Republic of
Greece
Guatemala
Hungary
Iceland
Iran
Ireland
Israel
Jamaica
Japan
Jordan
Kuwait
Laos
Liberia
Luxembourg
Malaysia
Mali
Mexico
Netherlands
New Zealand
Nicaragua
Niger
Norway
Pakistan
Paraguay
Peru
Poland
Romania
Rwanda
Saudi Arabia
Senegal
Spain
Sweden
Switzerland
Syrian Arab Republic
Thailand
Tunisia
Turkey
Ukrainian Soviet Socialist Republic
United Kingdom
United States of America
Venezuela
Viet-Nam (Republic of)
Zambia

II Non-governmental groups and organizations replying to the 1969–71 literacy questionnaire

Agency for Christian Literature Development
Associated Country Women of the World
Bestuur voor Internationale Culturele
Caritas Internationalis
Catholic International Education Office
Commission of the Churches on International Affairs
International Alliance of Women
International Association of Universities
International Catholic Centre for Co-ordination with Unesco
International Co-operative Alliance
International Council of Women
International Council on Social Welfare
International Federation of Free Teachers' Unions
International Federation of University Women
International Radio and Television Organization
International Voluntary Service
Pan-Pacific and South East Asia Women's Association
Société africaine de Culture
Women's International Democratic Federation
World Association of Girl Guides and Girl Scouts
World Confederation of Organizations of the Teaching Profession
World Federation of Trade Unions
World Federation of United Nations Associations

III Available literacy statistics by country

Illiterate population and percentage of illiteracy, censuses or surveys since 1945 (Source: Unesco Office of Statistics)

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
AFRICA								
Algeria								
Moslem population	1948	15 +	4 063 329	1 945 050	2 118 279	93.8	89.5	98.2
	1954	15 +	4 323 177	2 051 904	2 271 273	92.3	87.7	96.9
European population	1948	15 +	56 024	20 988	35 036	8.2	6.6	9.7
	1954	15 +	49 820	19 363	30 457	7.0	5.8	8.0
Total population	1948	15 +	4 119 353	1 966 038	2 153 315	82.2	78.8	85.5
	1954	15 +	4 372 997	2 071 267	2 301 730	81.0	77.4	84.5
	1966	15 +	5 176 900	2 203 900	2 973 000	81.2	70.1	92.0
Angola[2,3]	1950	A	4 019 834	1 946 327	2 073 507	97.0	95.7	98.2
Botswana[2,5]								
African population	1946	15 +	232 874	...	...	79.5	...	...
Cape Verde Islands[2,3]	1950	A	117 531	47 313	70 218	79.2	70.3	86.7
	1960	10 +	92 628	34 497	58 131	72.8	60.7	82.6
Comoreos Islands	1966	15 +	59 080	22 650	36 430	41.6	33.9	48.3
Egypt, Arab Republic of[19]	1947	15 +[10]	9 125 037	3 863 746	5 261 291	80.1	68.5	91.3
	1960	15 +	10 905 700	4 349 410	6 556 290	80.5	68.1	91.4

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
AFRICA (continued)								
Gabon[8]								
African population	1960/61	15 +	271 629	105 404	166 225	87.6	77.8	95.2
Ifni	1960	A	32 545	15 825	16 720	64.7	57.8	72.9
Lesotho	1946[4]	A	365 159	175 378	189 781	65.1	71.2	60.3
	1966[9]	15 +	197 849	101 690	96 159	41.4	56.0	32.4
Liberia	1962	15 +	581 578	266 494	315 084	91.1	86.1	95.8
Libyan Arab Republic	1954[10]	15 +	535 059	251 863	283 196	87.1	77.0	98.6
	1964	15 +	664 248	277 616	386 632	78.3	62.5	95.8
Madagascar[2,11]								
Indigenous population	1953	14 +	...	...	...	66.5	59.2	73.0
Malawi								
African population	1945	A	1 910 844	...	...	93.5	...	...
	1966	15 +	1 755 287	680 580	1 074 707	77.9	66.3	87.7
Mali[12]	1960/61	15 +	2 079 200	985 600	1 093 600	97.8	96.0	99.5
Mauritius and Deps[2]	1952	15 +	144 742	54 907	89 835	48.2	36.4	60.1
	1962	13 +	155 661	55 731	99 930	38.4	27.5	49.4
Morocco	1960	15 +	5 583 100	2 475 550	3 107 550	86.2	78.1	94.0

Mozambique[3]								
'Advanced' population	1950	15 +	8 098	2 263	5 835	12.7	6.0	22.2
	1955	15 +	7 789	1 592	6 197	9.9	3.6	18.0
'Non-advanced' population	1950	15 +	3 304 625	1 454 966	1 849 659	98.5	97.1	99.7
Niger	1960	15 +	1 493 520	698 270	795 250	99.1	98.5	99.7
Nigeria[13]								
African population	1952/53	7 +	19 767 089	...	...	88.5	...	...
Portuguese Guinea[3]								
'Advanced' population	1950	A	3 749	1 510	2 239	45.1	33.5	58.6
'Non-advanced' population	1950	15 +	317 480	150 291	167 189	99.7	99.5	99.9
Reunion	1954[5]	15 +	98 880	48 932	49 948	60.6	63.0	58.4
	1961	15 +	91 140	45 493	45 647	48.3	51.1	45.8
St Helena, Deps	1956[5]	16 +	112	58	54	4.5	5.1	4.0
	1966	16 +	67	40	27	2.5	3.1	1.9
Senegal[8,11]								
African population	1961	14 +	1 652 260	748 540	903 720	94.4	89.6	98.9
Seychelles	1947	A	25 634	...	...	74.0	...	...
	1960	15 +	13 795	6 997	6 798	54.1	57.7	50.8
Sierra Leone	1963	15 +	1 287 728	607 700	680 028	93.3	90.4	96.1
South Africa								
African population[14]	1946	10 +	4 072 683	2 075 478	1 997 205	72.5	71.6	73.4
	1960	A	7 330 837	3 703 808	3 627 029	68.5	68.5	68.5
Namibia (South-West Africa)								
African population	1960	15 +	154 044	69 488	84 556	61.6	54.8	68.7
Sudan[15]	1956	15 +	4 784 000	2 186 000	2 598 000	88.0	79.0	97.3

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
AFRICA (continued)								
Swaziland								
African population[16]	1946	A	172 366	81 731	90 635	95.1	93.0	97.1
	1956	A	183 076	...	...	77.2	...	...
Tunisia[17,18]								
Moslem population	1956	10 +	1 865 830	...	...	84.3	...	...
	1966	10 +	2 205 204	815 704	1 209 500	67.8	53.6	82.4
Uganda[15]								
African population	1959	16 +	2 722 000	1 122 000	1 600 000	74.9	63.2	86.1
Zaire[6]								
African population	1955/57	15 +	...	...	...	84.6[7]	70.8[7]	97.2[7]
Zambia[15]								
African population	1963	7 +	1 508 950	602 020	906 930	58.6	46.8	70.3
AMERICA, NORTH								
Antigua	1946	15 +	4 832	1 901	2 931	18.6	17.1	19.7
	1960	15 +	3 478	1 408	2 070	11.3	10.3	12.0
Bahama Islands	1953	5 +	10 684	4 908	5 776	14.9	15.0	14.9
Barbados	1946	15 +	11 391	3 867	7 524	8.9	7.2	10.2
Bermuda	1950	14 +	699	451	248	2.7	3.7	1.8
	1960	15 +	561	385	176	2.0	2.7	1.2

British Honduras	1946	15 +	6 845	3 056	3 789	18.9	17.7	20.0
	1960	15 +	6 680	3 022	3 658	13.4	12.5	14.3
Cayman Islands	1954[20]	15 +	193	...	...	3.9	...	...
	1960	15 +	364	170	194	6.7	6.9	6.4
Costa Rica								
Total	1950	15 +	94 492	44 947	49 545	20.6	19.9	21.4
Urban population		15 +	13 661	4 548	9 113	8.1	6.1	9.7
Rural population		15 +	80 831	40 399	40 432	27.9	26.7	29.3
Total	1963[14]	15 +	109 528	52 830	56 698	15.7	15.3	16.0
Urban population		10 +	24 219	9 211	15 008	6.7	5.5	7.6
Rural population		10 +	102 477	51 975	50 502	20.3	19.7	21.0
Cuba								
Total	1953	15 +	820 337	459 775	360 562	22.1	24.2	20.0
Urban population		15 +	255 709	122 687	133 022	11.1	11.0	11.2
Rural population		15 +	564 628	337 088	227 540	40.0	42.6	36.7
Dominica	1946	15 +	11 862	5 466	6 396	40.6	42.1	39.5
Dominican Republic	1950	15 +	677 293	325 755	351 538	57.1	55.3	58.9
	1956	15 +	548 734	...	...	40.1	...	...
	1960	15 +	569 450	267 610	301 840	35.5	33.3	37.6
El Salvador								
Total	1950[10]	15 +	644 514	292 156	352 358	59.6	56.4	62.8
Total	1961[5]	15 +	706 837	306 969	399 868	51.0	46.1	55.5
Urban population	1961	15 +	163 336	52 809	110 527	28.8	21.0	35.0
Rural population	1961	15 +	543 501	254 160	289 341	66.3	61.3	71.5
Grenada	1946	15 +	9 869	3 769	6 100	23.6	22.8	24.1
Guadeloupe, Dep[5]	1954	15 +	48 720	22 841	25 879	34.8	34.2	35.3
	1961	15 +	34 701	15 984	18 717	21.6	21.0	22.1
	1967	15 +	29 627	13 944	15 683	16.8	16.5	17.1

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
AMERICA, NORTH (continued)								
Guatemala	1950	15 +	1 138 297	527 143	611 155	70.6	65.6	75.6
	1964	15 +	1 411 440	625 460	785 980	62.1	55.9	68.2
Haiti	1950	15 +	1 718 278	797 134	921 144	89.5	87.2	91.5
Honduras								
Total	1950	10 +	631 999	305 095	326 904	64.8	62.9	66.7
Urban population		10 +	135 489	61 417	74 072	43.6	41.4	45.6
Rural population		10 +	496 510	243 678	252 832	74.7	72.3	77.2
	1961	15 +	541 107	246 428	294 679	55.0	51.3	58.9
Jamaica	1953[11]	15 +	210 864	110 688	100 176	23.0	26.2	20.3
	1960	15 +	171 363	94 539	76 824	18.1	21.4	15.2
Martinique	1954[5]	15 +	38 438	18 649	19 789	26.1	27.2	25.1
	1961	15 +	25 497	12 137	13 360	15.4	15.7	15.1
Mexico	1950	6 +	8 942 399	4 019 171	4 923 228	43.2	39.6	46.6
Total	1960	15 +	6 742 920	2 844 239	3 898 681	34.6	29.8	39.3
Urban population		15 +	2 154 061	795 962	1 358 099	21.3	16.7	25.5
Rural population		15 +	4 588 859	2 048 277	2 540 582	48.9	42.9	55.3
Montserrat	1946	15 +	1 997	889	1 108	23.2	25.5	21.7
	1960	15 +	1 334	561	773	19.5	20.3	18.9
Nicaragua	1950	15 +	369 376	176 953	192 423	61.6	62.0	61.3
	1963[21]	15 +	399 585	189 005	210 580	50.4	49.9	50.8
Panama[22]								
Total	1950	15 +	132 978	65 958	67 020	30.1	29.1	31.0

Urban population		15 +	14 936	5 821	9 115	7.9	6.5	9.3
Rural population		15 +	118 042	60 137	57 905	46.4	44.0	49.3
	1960	15 +	162 204	79 554	82 650	26.7	25.8	27.6
Puerto Rico								
Total	1950	15 +	335 799	144 225	191 574	26.7	23.0	30.4
Urban population		10 +	117 605	44 400	73 205	18.0	14.4	21.2
Rural population		10 +	259 561	122 631	136 930	29.7	26.8	32.9
	1960	15 +	261 140	111 480	149 660	19.4	17.0	21.7
St Kitts-Nevis-Anguilla	1946	15 +	5 606	2 326	3 280	19.1	18.5	19.5
	1960	15 +	3 605	1 492	2 113	11.8	11.2	12.2
St Lucia	1946	15 +	20 333	9 306	11 027	48.3	48.7	48.0
St Pierre and Miquelon	1951	10 +	282	122	160	8.1	7.3	8.8
	1962	15 +	31	13	18	0.9	0.8	1.0
St Vincent	1946	15 +	8 185	3 333	4 852	23.8	23.8	23.8
Trinidad and Tobago	1946	15 +	91 948	38 047	53 901	26.2	21.7	30.7
Turks and Caicos Islands	1954[20]	15 +	325	...	...	11.3	...	...
	1960	15 +	275	125	150	8.9	9.9	8.1
United States of America	1950[23,24]	14 +	3 623 000	1 966 000	1 657 000	3.2	3.6	2.9
Total	1959[11]	14 +	2 619 000	1 480 000	1 139 000	2.2	2.5	1.8
Urban population		14 +	1 295 000	629 000	666 000	1.7	1.8	1.7
Rural non-farm		14 +	697 000	426 000	271 000	2.2	2.8	1.7
Rural farm		14 +	627 000	425 000	202 000	4.3	5.6	2.9
Virgin Islands (U.K.)	1946	15 +	594	350	244	15.6	19.0	12.4
	1960	15 +	292	168	124	7.2	8.5	5.9

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
AMERICA, SOUTH								
Argentina								
Total	1947	14 +	1 541 678	705 198	836 480	13.6	12.1	15.2
Urban population		14 +	656 899	256 344	400 555	8.8	7.0	10.5
Rural population		14 +	884 779	448 854	435 925	23.2	20.9	26.2
	1960	14 +	1 221 420	529 010	692 410	8.6	7.5	9.7
Bolivia	1950	15 +	1 109 385	447 049	662 336	67.9	57.6	77.2
Brazil	1950	15 +	15 272 632	6 731 406	8 541 226	50.6	45.2	55.8
	1960	10 +	19 147 504	8 655 134	10 492 370	39.3	35.6	42.6
Chile								
Total	1952	15 +	730 124	321 436	408 688	19.8	18.0	21.4
Urban population[19,25]		15 +	236 050	75 350	160 700	10.4	7.5	12.7
Rural population[19,25]		15 +	483 850	234 400	249 450	36.0	33.0	39.0
	1960	15 +	730 038	324 450	405 588	16.4	15.1	17.6
Colombia	1951	15 +	2 429 333	1 101 351	1 327 982	37.7	35.0	40.2
	1964	15 +	2 526 590	1 128 546	1 398 044	27.1	25.2	28.9
Ecuador								
Total	1950[26]	15 +	815 464	341 188	474 276	44.3	37.9	50.3
Total	1962	15 +	799 535	337 849	461 686	32.5	27.9	36.9
Urban population	1962	15 +	107 742	33 774	73 968	11.9	8.1	15.2
Rural population	1962	15 +	691 793	304 075	387 718	44.5	38.4	50.7
French Guyana	1961	15 +	5 825	3 155	2 670	27.8	29.3	26.3
Guyana	1946	15 +	55 402	20 809	34 593	24.1	18.5	29.5

Paraguay	1950	15 +	255 411	86 151	169 260	34.2	24.5	42.9
	1962	15 +	250 226	88 739	161 687	25.5	19.0	31.3
Peru[27]	1961	17 +	2 014 800	629 900	1 384 900	39.4	25.6	52.4
Surinam	1964	15 +	29 000	14 000	15 000	16.4	16.0	16.7
Uruguay	1963	15 +	177 296	89 715	87 581	9.6	9.8	9.3
Venezuela	1950	15 +	1 365 888	615 735	750 153	47.8	42.8	52.8
	1961	15 +	1 499 250	663 031	836 219	36.7	32.0	41.6
ASIA								
Bahrain	1950	A	95 593	...	...	87.2	...	...
	1959	16 +	62 255	30 964	31 291	74.7	65.5	86.6
	1965	15 +	72 727	37 569	35 158	71.5	63.9	81.8
Brunei	1947[28]	15 +	17 610	7 384	10 226	72.6	56.2	92.1
	1960	15 +	25 677	9 549	16 128	57.4	39.8	77.6
Burma	1953[29]	16 +	583 336	135 098	448 238	30.1	13.7	47.2
	1954[30]	16 +	710 152	134 278	575 874	42.3	16.6	66.2
Ceylon	1946	15 +	1 548 243	500 972	1 047 271	37.0	22.1	54.8
	1953	15 +	1 576 798	513 811	1 062 987	32.3	19.5	47.3
	1963	15 +	1 541 090	477 870	1 063 220	24.9	14.6	36.3
Cyprus	1946	15 +	117 679	32 361	85 318	39.5	22.3	55.8
	1960	15 +	87 405	20 501	66 904	24.1	11.8	35.6
Hong Kong	1961[31]	15 +	530 604	92 939	437 665	28.6	9.8	48.2
	1966	10 +	569 860	105 640	464 230	21.8	8.0	35.6
India	1951[32]	15 +	173 857 820	78 630 730	95 227 090	80.7	70.6	91.6
	1961[33]	15 +	186 924 443	78 194 680	108 729 763	72.2	58.5	86.8

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
ASIA (continued)								
Indonesia[34]	1961	15 +	34 004 677	12 750 008	21 254 669			
Iran	1956	15 +	9 336 758	4 318 405	5 018 353	87.2	80.2	94.5
	1966	15 +	10 407 726	4 663 164	5 744 562	77.2	67.2	87.8
Iraq	1947	5 +	3 319 469	1 394 842	1 924 627	89.1	81.2	95.8
	1957	15 +	2 979 368	1 303 228	1 676 140	85.5	76.1	94.7
Israel								
Jewish population	1948[21]	15 +	31 761	8 363	23 398	6.3	3.2	9.7
Total	1961	14 +	225 935	68 315	157 620	15.8	9.5	22.3
Jewish population	1961	14 +	156 470	46 765	109 705	12.1	7.2	17.1
Non-Jewish population	1961	14 +	69 465	21 550	47 915	51.7	32.0	71.5
Japan[15]								
Total	1960	15 +	1 425 600	310 200	1 115 400	2.2	1.0	3.3
Urban population		15 +	334 400	73 200	261 200	1.1	0.5	1.7
Rural population		15 +	1 091 200	237 000	854 200	3.1	1.4	4.6
Jordan[5]	1961	15 +	630 023	228 851	401 172	67.6	49.9	84.8
Khmer Republic	1958	15 +	1 526 700	457 100	1 069 600	69.2	42.4	94.7
	1962	15 +	1 893 586	478 796	1 414 790	59.0	30.1	87.3
Korea, Republic of[24,35]	1955	15 +	2 934 353	771 907	2 162 446	23.2	12.6	33.3
	1960	15 +	4 359 570	1 212 027	3 147 543	29.4	16.6	41.8
Kuwait[24]	1957	A[10]	118 269	67 169	51 100	66.0	59.1	77.8
	1961	6 +[10,36]	120 654	71 928	48 726	53.2	47.8	64.1
	1965	10 +	155 397	88 240	67 157	47.4	41.0	59.9

Macao[2]	1950	A	88 436	32 364	56 072	47.1	32.7	63.1
	1960	15 +	30 777	8 544	22 233	29.6	17.4	40.7
Malaysia	1947[37]	15 +	2 397 000	922 000	1 475 000	62.2	44.1	83.7
	1957[38]	15 +	2 282 000	767 000	1 515 000	52.5	33.7	73.0
	1960[39]	15 +	521 000	231 000	290 000	77.7	67.7	88.1
Mongolia[5]	1956	9–50	23 800	...	...	4.6	...	...
Nepal	1952/54	15 +	4 808 919	2 190 869	2 618 050	94.9	90.9	99.4
	1961	15 +	5 159 650	2 269 643	2 890 007	91.2	83.3	98.5
Pakistan[40]	1951[2]	A	59 922 331	29 241 610	30 680 721	81.1	74.7	88.3
Total	1961	15 +	40 690 742	18 926 203	21 764 539	81.2	71.1	92.6
Urban population		15 +	4 558 120	2 231 141	2 326 979	63.3	52.6	78.9
Rural population		15 +	36 132 622	16 695 062	19 437 560	84.2	74.7	94.6
Philippines	1948	15 +	4 214 203	1 866 021	2 348 182	40.0	35.9	43.8
	1960	15 +	4 139 908	1 877 317	2 262 591	28.1	25.8	30.5
Ryukyu Islands	1950	15 +	139 938	41 747	98 191	25.4	17.1	32.0
Sikkim	1961	15 +	82 493	39 081	43 412	84.1	74.0	96.0
Syrian Arab Republic[42]	1960	15 +	1 657 238	629 248	1 027 990	70.5	53.3	87.9
Thailand	1947	15 +	4 833 747	1 571 207	3 262 540	48.0	31.4	64.4
	1960	15 +	4 828 856	1 540 882	3 287 974	32.3	20.7	43.9
Turkey	1950	15 +	8 769 887	3 299 644	5 470 243	68.1	52.3	83.3
	1960	15 +	10 100 972	3 714 290	6 386 682	61.9	45.2	78.9
	1965[43]	15 +	9 870 898	3 245 613	6 625 285	54.0	35.5	72.6
Viet-Nam, Democratic Republic of	1960	12 +	3 521 812	...	...	35.5	...	...
Yemen, People's Democratic Republic of[41]	1946	15 +	44 258	25 300	18 958	79.0	70.2	94.7

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
EUROPE								
Albania	1950	9 +	...	...	...	53.8	41.2	67.0
	1955	9 +	...	...	...	28.5	20.1	36.9
Belgium	1947	15 +	222 391	104 727	117 664	3.3	3.2	3.4
Bulgaria	1946	15 +	1 229 064	358 158	870 906	24.2	14.2	34.1
	1956	15 +	822 056	203 237	618 819	14.7	7.3	21.9
Total	1965	15 +	613 943	149 756	464 187	9.8	4.8	14.7
Urban population	1965	15 +	153 571	37 641	115 930	5.2	2.5	7.8
Rural population	1965	15 +	460 372	112 115	348 257	13.8	6.8	20.7
France	1946	14 +[10]	1 087 406	476 524	610 882	3.6	3.3	3.8
Gibraltar[16]	1951	5 +	6 675	1 934	4 741	34.5	21.7	45.4
Greece								
Total	1951	15 +	1 399 343	307 360	1 091 983	25.9	11.9	38.6
Urban and semi-urban population		15 +	581 273	138 914	442 359	19.5	9.5	29.0
Rural population		15 +	818 070	168 446	649 624	33.7	14.9	49.9
Total	1961	15 +	1 202 900	242 800	960 100	19.6	8.3	30.0
Urban and semi-urban population		15 +	519 600	114 500	405 100	14.5	6.6	22.0
Rural population		15 +	683 400	128 400	555 000	26.7	10.6	41.0
Hungary	1949	15 +	322 342	124 981	197 361	4.7	3.8	5.4
	1960[43]	15 +	234 800	92 000	142 800	3.2	2.6	3.6
	1963	15 +	201 300	75 850	125 450	2.6	2.1	3.1

Italy	1951	15 +	5 046 685	1 955 274	3 091 411	14.1	11.3	16.6
	1961	15 +	3 648 644	1 379 541	2 269 103	9.3	7.3	11.2
Malta	1948	15 +	84 471	38 713	45 758	42.4	40.1	44.5
Poland	1950[21]	14 +	1 110 423	386 559	723 864	6.2	4.8	7.5
	1960	14 +	909 760	262 560	647 200	4.7	2.9	6.2
Portugal	1950[2]	15 +	2 622 128	981 053	1 641 075	44.1	35.1	52.0
	1960	15 +	2 397 487	897 939	1 499 548	38.1	30.6	44.6
Romania	1948	7 +	3 197 278	960 802	2 236 476	23.1	14.5	30.9
	1956	15 +	1 448 354	370 911	1 077 443	11.4	6.1	16.3
Spain								
Total	1950	15 +	3 642 668	...	...	17.6	...	...
Urban and semi-urban population	1950		2 164 923	...	...	17.1	...	...
Rural population			1 477 745	...	...	18.5	...	...
	1960[44]	15 +	2 939 388	883 306	2 056 082	13.3	8.4	17.7
Yugoslavia[5]	1953	15 +	3 219 768	832 751	2 387 017	27.3	14.9	38.5
	1961[45]	15 +	2 985 700	748 600	2 237 100	23.5	12.4	33.6
OCEANIA								
Cook Islands[46]								
Indigenous population	1951	15 +	652	324	328	8.2	7.9	8.6
Fiji Islands[47]	1946	15 +	50 129	22 288	27 841	35.6	29.2	43.0
French Polynesia	1951	A	839	468	371	1.3	1.5	1.3
	1962	15 +	2 577	1 291	1 286	5.5	5.3	5.7
Gilbert and Ellice Islands[46]								
Indigenous population	1947	10 +	2 637	893	1 744	9.9	6.8	12.8

Country	Year of census or survey	Age level[1]	Illiterate population			Percentage of illiteracy		
			Total	Male	Female	Total	Male	Female
OCEANIA (continued)								
New Caledonia[2]	1963	15 +	8 546	3 983	4 563	16.2	14.1	18.7
Niue[46]								
Indigenous population	1945	15 +	387	141	246	12.8	9.9	15.3
	1951	15 +	166	54	112	6.0	4.0	7.9
Papua	1966	10 +	288 485	141 130	147 355	70.6	65.6	76.0
Tokalau Islands								
Indigenous population	1951	15 +	25	11	14	2.8	2.6	2.9
Western Samoa[46]								
Indigenous population	1951	15 +	6 183	4 916	1 267	14.4	23.1	5.9
	1966	15 +	1 648	856	792	2.6	2.6	2.5
U.S.S.R.								
U.S.S.R.	1959	9 - 49	...	...	...	1.5	0.7	2.2

GENERAL NOTE. In this table, *ability both to read and write is used as the criterion of literacy;* hence all semi-literates—persons who can read but not write—are included with *illiterates. Persons unspecified for literacy are excluded from calculations; hence the per*centage of illiteracy for a given country is based on the number of reported illiterates, divided by the total number of reported literates and illiterates. (The same result is obtained by distributing the number of unspecified cases proportionately between the literates and illiterates.) Cases where the number of persons unspecified for literacy represents 3 per cent or more of the population in the age level considered, are indicated in footnotes.

In addition to the illiteracy rates, the number of illiterates is given in this table as indicating *the order of magnitude of the illiteracy problem.* Because of the rapid growth of population in some countries during recent years, the number of illiterates may in a given case be about the same over a period of years, or even show some increase, although the corresponding percentage may have decreased slightly.

1. A = all ages, 15 + = 15 years and over.
2. Not including semi-literate persons.
3. Illiteracy defined as inability either to read or to write Portuguese.
4. Illiteracy defined as inability either to read or to write Sesuto.
5. Illiterate population includes persons of unknown literacy status.
6. Data are estimates based on results of sample survey.
7. Derived by subtraction from literacy rate not computed in the Unesco Statistical Office.
8. Illiteracy defined as inability to read and write French.
9. Excluding absentee workers amounting to 12 per cent of total population at time of census.
10. Excluding population with unknown literacy in the corresponding age level, amounting to the following: 3 per cent in El Salvador (1950); 4 per cent in France; 14 per cent in Kuwait (1957), 8 per cent (1961); 4 per cent in the Libyan Arab Republic (1954) and 3 per cent in the Arab Republic of Egypt (1947).
11. Based on a sample survey.
12. Not including nomad population. Literate population includes persons who can read only.
13. Including former British Cameroons.
14. Based on a 5 per cent sample of census returns.
15. Illiteracy defined as 'never attended school'.
16. Illiteracy defined as inability both to read and write English.
17. Based on a 10 per cent sample.
18. Illiteracy defined as inability to write in any language.
19. Excluding nomad population.
20. Based on a 20 per cent survey sample of households.
21. Based on a sample tabulation of census returns.
22. Excluding data for Canal Zone; excluding Indian jungle population.
23. Not including Alaska and Hawaii.
24. Based on a 20 per cent sample of census returns.
25. Based on a 2 per cent sample.
26. Excluding Indian jungle population.
27. Based on an approximately 15 per cent sample of census returns. Excluding Indian jungle population estimated at 455,000 persons in 1960.
28. Excluding European population and nomadic aborigines.
29. Population in 252 towns only, approximating the urban area of the Union.
30. Population in 2,131 village tracts.
31. Persons with no schooling are defined as illiterates.
32. Based on a 10 per cent sample of census returns, revised figures, excluding 'displaced' persons.
33. Excluding Sikkim and North East Frontier Agency. Including Kashmir-Jammu and Goa, Daman and Diu.
34. Excluding West Irian. Data are based on a 1 per cent sample of census returns.
35. Excluding alien armed forces, civilian aliens employed by armed forces and foreign diplomatic personnel and their dependants.
36. Excluding Bedouin population numbering 17,747 persons in 1961.
37. Not including Sabah. Not including nomadic aborigines. For Singapore, including European population.
38. Not including Sabah and Sarawak. Illiteracy defined as inability both to read and write a simple letter in any language.
39. Data refer to Sabah and Sarawak only.
40. For Pakistani nationals only.
41. Data refer to former Aden Colony only.
42. Syrian arabs only. Excluding foreigners.
43. Based on a 1 per cent sample.
44. Based on a 1 per cent sample of census returns.
45. Based on a 5 per cent sample survey.
46. Illiteracy defined as inability to read and write the native language.
47. Illiteracy defined as inability to write English or the native language.

IV Meetings, 1969–71, with Unesco participation and assistance

EXPERIMENTAL WORLD LITERACY PROGRAMME

Meeting on Experimental World Literacy Programme 1–5 December 1969 (Unesco Headquarters)	To examine progress made in the experimental programme and determine subsequent development of the programme.
Third International Evaluation Panel 8–17 September 1970 (Teheran, Iran)	To consider progress of the experimental programme. (Report available.[1])
Literacy Research Week 22–26 February 1971 (Unesco Headquarters)	To determine ways and means of university co-operation in the experimental programme.
Meeting of Evaluators of Functional Literacy Projects 3–8 May 1971 (Unesco Headquarters)	To consider evaluation of impact of functional literacy and to develop framework permitting a certain amount of international comparability.
Meeting of Specialists in Methodology and Evaluation of Functional Literacy Projects 15–17 July 1971 (Unesco Headquarters)	To establish framework for description of functional literacy methodology, to establish guidelines for pedagogic evaluation, to define research themes common to projects.
Fourth International Evaluation Panel 20–24 September 1971 (Unesco Headquarters)	To consider progress of the experimental programme. (Report available.)
Inter-Agency Meeting on Work-oriented Literacy 1–5 December 1969 (Unesco Headquarters)	To discuss collaboration between Unesco and other United Nations Specialized Agencies.
Inter-Agency Meeting on Work-oriented Literacy 1–2 December 1970 (Unesco Headquarters)	To discuss collaboration between Unesco and other United Nations Specialized Agencies.
International Jury for Literacy Prizes 25–31 August 1969 (Santiago de Compostela, Spain)	Select winner of international prize. (Report available.)
International Jury for Literacy Prizes 25–30 August 1970 (Teheran, Iran)	Select winners of international prizes. (Report available.)
International Jury for Literacy Prizes 31 August to 1 September 1971 (Moscow, U.S.S.R.)	Select winners of international prizes. (Report available.)

1. Indicates that the final report is available from Unesco.

Round Table of Bankers, Economists, Financiers 11–13 February 1969 (Rome, Italy)	To consider literacy as economic investment and advise on best ways of financing literacy operations. (Report available.)
European Round Table on Literacy in Economic Development Projects 22–24 April 1970 (Turin, Italy)	To examine the problems of fitting literacy training into economic development projects.

TRAINING PROGRAMMES

Study Visit and Seminar to Iran's Project by Educators from Twelve Asian Countries 27 October to 9 November 1969 (Iran)	To see pilot project of functional literacy and participate in seminar.
Workshop for English-speaking Literacy Projects 29 April to 12 May 1970 (Addis Ababa, Ethiopia)	Training in functional literacy.
Operational Seminar for French-speaking Literacy Projects 18 May to 5 June 1969 (Tunis, Tunisia)	Practical training in functional literacy.

CREFAL

Seminar on Functional Literacy in Latin America Mid-1969 (Quito, Ecuador)	To analyse literacy programmes under way and to discuss training in the context of development.
Operational Seminar for Latin America 21 September to 8 October 1970 (Patzcuaro, Mexico)	To provide first-hand experience of various phases of a functional literary project.
Operational Seminar for Central America and Panama 1–28 March 1971 (Turrialba, Costa Rica)	To provide first-hand experience of various phases of a functional literary project.

CREFAL-AIDED SEMINARS AT NATIONAL LEVEL

Seminar on Functional Literacy 17–19 February 1970 (Colombia)	To discuss functional literacy.
Seminar on Functional Literacy 16–25 March 1970 (Lima, Peru)	To determine appropriate ways to implement functional literacy projects.
Operational Seminar 3–31 May 1971 (Celaya, Mexico) and 2–20 June 1971 (Lombardia, Mexico)	To provide first-hand experience of various phases of a functional literacy project.
Operational Seminar 31 May to 23 June 1971 (Acariqua, Venezuela)	To provide first-hand experience of various phases of a functional literacy project.
Operational Seminar 9–28 August 1971 (Baranquilla, Colombia)	To provide first-hand experience of various phases of a functional literacy project.

ASFEC

Seminar on Functional Literacy 11 August to 1 September 1969 (Beirut, Lebanon)	To outline practical measures in planning and executing functional literacy programmes.
Regional Operational Seminar 9–28 January 1971 (Gezira area, Sudan)	To initiate participants into the various phases of a functional literacy project.

ASFEC-AIDED SEMINAR AT NATIONAL LEVEL

Field Operational Seminar for New Communities 1–31 May 1971 (Abis and Tahrir areas, Egypt)	To provide participants with field experiences in processes of functional literacy work.

RADIO AND TELEVISION

Radio and Television in Out-of-School Education for Literacy Work, Regional Workshop 16 April to 14 May 1971 (Kingston, Jamaica)	To consider how to utilize radio and television for literacy work.

NON-GOVERNMENTAL ORGANIZATIONS

World Assembly of Youth 7–12 April 1969 (San José, Costa Rica)	To consider youth and students in literacy projects.
World Federation of Trade Unions (WFTU) 6–10 May 1969 (Nicosia, Cyprus)	To consider role of trade unions in functional literacy.
Le Mouvement Mondial des Mères Femmes et Mères d'Afrique 1–8 September 1969 (Togo)	To consider literacy problems in relation to women's status and role.
World Association of Girl Guides and Girl Scouts NGO Regional Seminar, Asia 18–28 January 1970 (Colombo, Ceylon)	To consider literacy as a factor in the civic and political education of women. (Report available.)
World Union of Catholic Women's Organizations June and July 1970 (Kenya, Uganda, Tanzania)	Three meetings about education and literacy for women.
Study Course on Literacy and Economic Development (World Confederation of Organizations of the Teaching Professions, WCOTP; Union of Lay Teachers; Syndicat des Enseignants Laïcs du Togo, SELT) 8–15 July 1970 (Lome, Togo)	To consider role of women in functional literacy campaigns.
Associated Country Women of the World and International Alliance of Women 17–24 December 1970 (Calcutta, India)	Seminar on the role of a women's voluntary organization in national development.
Permanent Committee of Non-Governmental Organizations 1–15 March 1971 (Unesco Headquarters)	To consider role of non-governmental organizations in literacy work.

Seminar on African Teachers' Role in Literacy (World Federation of Teachers' Union, WFTU) 15–17 March 1971 (Khartoum, Sudan)	To assess the experiences of the African teachers' organizations in literacy work.
Women's International Democratic Federation 1–10 November 1971 (New Delhi, India)	Regional seminar on the training of literacy workers.
World Union of Catholic Women's Organizations 26 November to 3 December 1971 (Nairobi, Kenya)	Regional seminar on education of women.
Catholic Commission on Development (Commission Episcopale pour le Developpement) 27 December to 8 January 1972 (Kinshasa, Zaire)	National seminar on 'The Church and Development'.

V The Mohammad Reza Pahlavi Prize and the Nadezhda K. Krupskaya Prize: winners and honourable mentions

1969: MOHAMMAD REZA PAHLAVI PRIZE

Winner:

NATIONAL TECHNICAL LITERACY COMMITTEE OF THE KINGDOM OF CAMBODIA, for its impressive efforts and the remarkable results it has obtained by mobilizing public opinion and using all available means for the promotion of adult literacy so as to stimulate adults to take an active part in the economic, social and cultural development of their country.

Honourable mentions:

SUMMER INSTITUTE OF LINGUISTICS, AUSTRALIA, for its untiring activity in the various branches of literacy teaching in some fifty-five vernacular languages, on behalf of about 500,000 illiterates belonging to seventy-six tribes in Papua, New Guinea.

BOMBAY SOCIAL EDUCATION COMMITTEE, INDIA, for its sustained efforts and decisive contribution to literacy teaching on behalf of 522,000 adults, and for its social and cultural activity among those who have recently learned to read.

BAMBARA TECHNICAL COMMISSION, MALI, for its systematic activity on behalf of the literacy teaching of adults in the Bambara language, as part of a pilot project for functional literacy.

NEPAL WOMEN'S ORGANIZATION, for its remarkable work in favour of the literacy teaching of women and of their integration into the national effort for economic and social development.

ASSOCIATION OF PAKISTAN GUIDES, for organizing a network of eighty-two adult literacy centres which regularly teach 3,000 women at a time and in which thousands of persons have learned to read and write during the last ten years.

ADULT EDUCATION INSTITUTE, TUNISIA, for its decisive contribution to the launching and implementation of a national adult literacy programme, including the establishment, testing and application of an efficient methodology of literacy teaching and training.

BELGRADE TELEVISION, YUGOSLAVIA, for its creative activity in using television for adult literacy and for its outstanding contribution in the matter of methodology.

PASTOR CHARLES T. HEIN, Member of the Togolese National Literacy Committee, for his remarkable scientific work which has proved beneficial not only to Togo but to several

other African countries, and for the fundamental and direct part he has played in training nearly one thousand voluntary teachers and instructors for literacy work.

1970: MOHAMMAD REZA PAHLAVI PRIZE

Winner:

ACCION POPULAR-ESCUELAS RADIOFONICAS DE SUTATENZA, COLOMBIA, for the unceasing activities it has carried out and developed since 1947 in favour of adult literacy through the use of radio, and for the considerable influence it has gained on an international level, especially due to thorough research in different fields of activity.

Honourable mentions:

LIAISON COMMITTEE FOR LITERACY AND PROMOTION, FRANCE, for its noteworthy efforts in the training of literacy personnel and in research in the particularly complex and relatively unexplored field of literacy activity among immigrant workers in an industrialized country.

EDUCATIONAL RADIO-TELEVISION TEAM, TUNISIA, for its successful experiment with the combined use of television and radio for literacy throughout the major part of this country.

LITERACY HOUSE LUCKNOW, INDIA, for the totality of its activity since its creation in 1953 in the different fields of adult literacy and, particularly, the writing of primers, the use of audio-visual means and research.

RADIO UNIVERSITY OF GITERAMA, RWANDA, for its systematic use of radio to make literate young people and adults of scattered populations whose education by ordinary means is particularly difficult.

YEMISSRACH DIMTS LITERACY CAMPAIGN, ETHIOPIA, for its efforts in the planning of literacy work and its capacity to foster the participation of local communities in the financing and implementation of its activities.

1970: NADEZHDA K. KRUPSKAYA PRIZE

Winner:

LANGUAGE AND LITERATURE INSTITUTE OF THE ACADEMY OF SCIENCES, MONGOLIAN PEOPLE'S REPUBLIC, for the decisive part it has taken in the elemination of illiteracy in this country within a few decades, starting from a very high percentage of illiteracy and under particularly difficult conditions.

Honourable mentions:

MOBILE RURAL SCHOOLS, MEXICO, for the literacy work that this system of itinerent classes is carrying out among young people and adults living in isolated regions deprived of village schools.

AMIR BIRDJANDI, IRAN, for a lifelong career dedicated to adult literacy, crowned by his decisive contribution to the implementation of Iran's functional literacy project.

ANNA LORENZETTO, PRESIDENT NATIONAL UNION FOR THE STRUGGLE AGAINST ILLITERACY, ITALY, for the impact of her practical activity and her conceptual contribution to literacy, both in her own country and at an international level.

National Adult Literacy and Education Services, People's Republic of the Congo, for its increasing achievements, obtained in spite of the scarcity of means at its disposal and, especially, for its capacity to develop the interest and the participation of broad sections of the population.

Union of Sudanese Women, for its sustained efforts and the notable results obtained among illiterate women, through the use of highly diversified means and methods, and thanks to its ever-present concern for linking literacy work to the specific problems and interests of its audience.

1971: MOHAMMAD REZA PAHLAVI PRIZE

Winner:

General Literacy Supervisory and Co-ordinating Committee, Burma, for the intensive literacy teaching carried out with exemplary persistence and earnestness in an increasing number of areas for the benefit of broad strata of the population and with the assistance of the whole student body.

Honourable mentions:

National Affiliation for Literacy Advance, United States of America, for the notable effort of this charitable organization in the training of literacy teaching teams, research, and the mobilization of public opinion.

Mrs Marjorie Kirlew, Jamaica, for twenty years the exemplary prime mover and organizer of the national literacy programme, for her work as a whole and especially for her vital contribution to the production of educational material and to the universal use of audio-visual aids.

Literacy Campaign in West Irian, Indonesia, for the work it has done to eradicate illiteracy in that area, despite great material difficulties and the fact that a large number of the inhabitants do not speak the language of Indonesia.

1971: NADEZHDA K. KRUPSKAYA PRIZE

Winner:

Zambia Adult Literacy Programe, for the substantial effort it is making, in the matter of literacy teaching, for the benefit of hundreds of thousands of adults, with the purpose of producing massive and diversified literacy teaching and post-literacy teaching material in the different Zambian languages.

Honourable mentions:

Angolan Women's Organization, for its literacy teaching work, carried out in conditions of great insecurity and sometimes in secret, with the purpose of giving the people the knowledge necessary to improve their daily life and raise the productivity of their work.

Ministry of Education and Fine Arts, Dominican Republic, for its tremendous effort to provide nation-wide literacy teaching for adults by systematically mobilizing those of good will, and setting up an immense network of radio schools.

Literacy Section of the State of Kuwait, for the systematic studies it has carried out as part of its programme of activities, in order to improve literacy textbooks as one of the country's priorities in economic and social development.